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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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RECENT CHANGES IN THE TAXONOMY OF TENNESSEE BIRDS

CHARLES P. NICHOLSON

The recently published Sixth Edition of the *Check-list of North American Birds* (American Ornithologist's Union 1983, Allen Press, Lawrence, Kansas) is the new standard for the order of species, accepted names, and ranges of North American birds. As in previous editions and supplements, there are many changes in the taxonomy, English names, and sequence of species. The Sixth Edition differs from previous checklists by including the birds of Central America, the Caribbean, and Hawaii, and by not including accounts of subspecies. This article discusses changes in the new checklist as they relate to birds on the new official Tennessee list (Nicholson, *Migrant* 54:2-5, 1983) (following article).

The scientific names of some species have been changed at the generic level, and at the species level through the "lumping" and "splitting" of species. Taxonomic changes at the species level do not affect the number of species on the Tennessee list. Several changes were made in the families and subfamilies of passerines, and the arrangement of species in many families was changed to better reflect the relationships among the species. These changes are incorporated in the new Tennessee list.

English name changes were made to reflect changes in taxonomy, to conform to other English names in usage elsewhere, to formalize the use of previously introduced English names, or to distinguish North American species from similarly-named species in other parts of the world. These new names reflect a move toward a standardized worldwide list of English names for birds. Many of the changes consist of the addition of a modifier such as "Northern" or "American." In other cases, English generic names have been made into compounds by hyphenation (e.g., Night-Heron). These changes are also evident in the adjoining list. The only changes in English names which may not be familiar to readers of *The Migrant* are the following:

Former Name	*Present Name*
Harcourt's Storm-Petrel	Band-rumped Storm-Petrel
Louisiana Heron	Tricolored Heron
Green Heron	Green-backed Heron
Whistling Swan	Tundra Swan
Common Gallinule	Common Moorhen
Common Flicker	Northern Flicker
Short-billed Marsh Wren	Sedge Wren
Long-billed Marsh Wren	Marsh Wren

The changes introduced in the Sixth Edition checklist are adopted in this issue and will be used in the following issues of *The Migrant.*

P. O. Box 402, Norris, TN 37828.

THE OFFICIAL LIST OF TENNESSEE BIRDS

CHARLES P. NICHOLSON

In the fall of 1982, the Certification Committee of the Tennessee Ornithological Society was formed. Since then, the committee has assembled the following official list of Tennessee birds. Birds were placed on the list of confirmed species if the Committee determined (1) that there was extant either a verified skin, photograph, or sound recording of the species from Tennessee, or (2) that 3 independent observations of the species in the state had been satisfactorily documented. In the absence of such evidence, a species was considered to be of provisional status until such evidence is obtained.

Certification committee members include Martha Waldron, Pat Stallings, and James Tanner. David Pitts, Katherine Goodpasture, and Rick Knight are alternates, and Charles Nicholson is ex-officio chairman.

The bird species included on this list are those reported in Tennessee since ornithological exploration of the state began in the 1800's. A few additional species are known from archaeological evidence to have occurred in the state. These have been discussed by Parmalee and Klippel (1982), Corgan (1974), and others. Confirmed species appear in the following list without annotation. Provisional species are noted by (P) following the English name of the species. Species extirpated from Tennessee or extinct are noted by (E), and (I) denotes non-native species successfully established in Tennessee. Taxonomy follows AOU (1983), and the list is divided by families.

Red-throated Loon, *Gavia stellata*
Common Loon, *Gavia immer*

Pied-billed Grebe, *Podilymbus podiceps*
Horned Grebe, *Podiceps auritus*
Red-necked Grebe, *Podiceps grisegena*
Eared Grebe, *Podiceps nigricollis*
Western Grebe, *Aechmophorus occidentalis*

Band-rumped Storm-Petrel, *Oceanodroma castro*

American White Pelican, *Pelecanus erythrorhynchos*
Brown Pelican, *Pelecanus occidentalis*

Double-crested Cormorant, *Phalacrocorax auritus*

Anhinga, *Anhinga anhinga*

American Bittern, *Botaurus lentiginosus*
Least Bittern, *Ixobrychus exilis*
Great Blue Heron, *Ardea herodias*
Great Egret, *Casmerodius albus*
Snowy Egret, *Egretta thula*
Little Blue Heron, *Egretta caerulea*
Tricolored Heron, *Egretta tricolor*
Cattle Egret, *Bubulcus ibis*
Green-backed Heron, *Butorides striatus*
Black-crowned Night-Heron, *Nycticorax nycticorax*
Yellow-crowned Night-Heron, *Nycticorax violaceus*

White Ibis, *Eudocimus albus*
Glossy Ibis (P), *Plegadis falcinellus*
White-faced Ibis (P), *Plegadis chihi*
Roseate Spoonbill (P), *Ajaia ajaja*

Wood Stork, *Mycteria americana*

Fulvous Whistling-Duck, *Dendrocygna bicolor*
Black-bellied Whistling-Duck, *Dendrocygna autumnalis*
Tundra Swan, *Cygnus columbianus*
Trumpeter Swan (E), *Cygnus buccinator*
Greater White-fronted Goose, *Anser albifrons*
Snow Goose, *Chen caerulescens*
Brant, *Branta bernicula*
Barnacle Goose, *Branta leucopsis*
Canada Goose, *Branta canadensis*
Wood Duck, *Aix sponsa*
Green-winged Teal, *Anas crecca*
American Black Duck, *Anas rubripes*
Mallard, *Anas platyrhynchos*
Northern Pintail, *Anas acuta*
Garganey, *Anas querquedula*
Blue-winged Teal, *Anas discors*
Cinnamon Teal, *Anas cyanoptera*
Northern Shoveler, *Anas clypeata*
Gadwall, *Anas strepera*
Eurasian Wigeon, *Anas penelope*
American Wigeon, *Anas americana*
Canvasback, *Aythya valisineria*
Redhead, *Aythya americana*
Ring-necked Duck, *Aythya collaris*
Greater Scaup, *Aythya marila*
Lesser Scaup, *Aythya affinis*
King Eider, *Somateria spectabilis*
Oldsquaw, *Clangula hyemalis*
Black Scoter, *Melanitta nigra*
Surf Scoter, *Melanitta perspicillata*
White-winged Scoter, *Melanitta fusca*
Common Goldeneye, *Bucephala clangula*
Barrow's Goldeneye (P), *Bucephala islandica*
Bufflehead, *Bucephala albeola*

Hooded Merganser, *Lophodytes cucullatus*
Common Merganser, *Mergus merganser*
Red-breasted Merganser, *Mergus serrator*
Ruddy Duck, *Oxyura jamaicensis*
Masked Duck, *Oxyura dominica*

Black Vulture, *Coragyps atratus*
Turkey Vulture, *Cathartes aura*

Osprey, *Pandion haliaetus*
American Swallow-tailed Kite, *Elanoides forficatus*
Mississippi Kite, *Ictinia mississippiensis*
Bald Eagle, *Haliaeetus leucocephalus*
Northern Harrier, *Circus cyaneus*
Sharp-shinned Hawk, *Accipiter striatus*
Cooper's Hawk, *Accipiter cooperii*
Northern Goshawk, *Accipiter gentilis*
Red-shouldered Hawk, *Buteo lineatus*
Broad-winged Hawk, *Buteo platypterus*
Swainson's Hawk (P), *Buteo swainsoni*
Red-tailed Hawk, *Buteo jamaicensis*
Rough-legged Hawk, *Buteo lagopus*
Golden Eagle, *Aquila chrysaetos*

American Kestrel, *Falco sparverius*
Merlin, *Falco columbarius*
Peregrine Falcon, *Falco peregrinus*
Prairie Falcon, *Falco mexicanus*

Ring-necked Pheasant (I), *Phasianus colchicus*
Ruffed Grouse, *Bonasa umbellus*
Greater Prairie Chicken (E), *Tympanuchus cupido*
Wild Turkey, *Meleagris gallopavo*
Northern Bobwhite, *Colinus virginianus*

Yellow Rail, *Coturnicops noveboracensis*
Black Rail, *Latterallus jamaicensis*
King Rail, *Rallus elegans*
Virginia Rail, *Rallus limicola*
Sora, *Porzana carolina*
Purple Gallinule, *Porphyrula martinica*
Common Moorhen, *Gallinula chloropus*
American Coot, *Fulica americana*
Caribbean Coot, *Fulica caribaea*

Limpkin, *Aramus guarauna*

Sandhill Crane, *Grus canadensis*

Black-bellied Plover, *Pluvialis squatarola*
Lesser Golden-Plover, *Pluvialis dominica*
Snowy Plover, *Charadrius alexandrinus*
Semipalmated Plover, *Charadrius semipalmatus*
Piping Plover, *Charadrius melodus*
Killdeer, *Charadrius vociferus*

Black-necked Stilt, *Himantopus mexicanus*
American Avocet, *Recurvirostra americana*

Greater Yellowlegs, *Tringa melanoleuca*
Lesser Yellowlegs, *Tringa flavipes*
Solitary Sandpiper, *Tringa solitaria*
Willet, *Catoptrophorus semipalmatus*
Spotted Sandpiper, *Actitis macularia*
Upland Sandpiper, *Bartramia longicauda*
Whimbrel, *Numenius borealis*
Hudsonian Godwit, *Limosa haemastica*
Marbled Godwit, *Limosa fedoa*
Ruddy Turnstone, *Arenaria interpres*
Red Knot, *Calidris canutus*
Sanderling, *Calidris alba*
Semipalmated Sandpiper, *Calidris pusilla*
Western Sandpiper, *Calidris mauri*
Least Sandpiper, *Calidris minutilla*
White-rumped Sandpiper, *Calidris fuscicollis*
Baird's Sandpiper, *Calidris bairdii*
Pectoral Sandpiper, *Calidris melanotos*
Purple Sandpiper, *Calidris maritima*
Dunlin, *Calidris alpina*
Stilt Sandpiper, *Calidris himantopus*
Buff-breasted Sandpiper, *Tryngites subruficollis*
Ruff (P), *Philomachus pugnax*
Short-billed Dowitcher, *Limnodromus griseus*
Long-billed Dowitcher, *Limnodromus scolopaceus*
Common Snipe, *Gallinago gallinago*
American Woodcock, *Scolopax minor*
Wilson's Phalarope, *Phalaropus tricolor*
Red-necked Phalarope, *Phalaropus lobatus*
Red Phalarope, *Phalaropus fulicaria*

Laughing Gull, *Larus atricilla*
Franklin's Gull, *Larus pipixcan*
Bonaparte's Gull, *Larus philadelphia*
Ring-billed Gull, *Larus delawarensis*
Herring Gull, *Larus argentatus*
Iceland Gull (P), *Larus glaucoides*
Glaucous Gull, *Larus hyperboreus*
Great Black-backed Gull (P), *Larus marinus*
Black-legged Kittiwake, *Rissa tridactyla*
Caspian Tern, *Sterna caspia*
Common Tern, *Sterna hirundo*
Forster's Tern, *Sterna forsteri*
Least Tern, *Sterna antillarum*
Sooty Tern (P), *Sterna fuscata*
Black Tern, *Chlidonias niger*
Black Skimmer (P), *Rynchops niger*

Rock Dove (I), *Columba livia*
Band-tailed Pigeon (P), *Columba fasciata*
Mourning Dove, *Zenaida macroura*
Passenger Pigeon (E), *Ectopistes migratorius*
Common Ground-Dove, *Columbina passerina*

Monk Parakeet (I), *Myiositta monachus*
Carolina Parakeet (E), *Conuropsis carolinensis*

Black-billed Cuckoo, *Coccyzus erythropthalmus*
Yellow-billed Cuckoo, *Coccyzus americanus*
Groove-billed Ani, *Crotophaga sulcirostris*

Common Barn-Owl, *Tyto alba*

Eastern Screech-Owl, *Otus asio*
Great Horned Owl, *Bubo virginianus*
Snowy Owl, *Nyctea scandiaca*
Barred Owl, *Strix varia*
Long-eared Owl, *Asio otus*
Short-eared Owl, *Asio flammeus*
Northern Saw-whet Owl, *Aegolius acadicus*

Common Nighthawk, *Chordeiles minor*
Chuck-will's-widow, *Caprimulgus carolinensis*
Whip-poor-will, *Caprimulgus vociferus*

Chimney Swift, *Chaetura pelagica*

Ruby-throated Hummingbird, *Archilochus colubris*

Belted Kingfisher, *Ceryle alcyon*

Red-headed Woodpecker, *Melanerpes erythrocephalus*
Red-bellied Woodpecker, *Melanerpes carolinus*
Yellow-bellied Woodpecker, *Sphyrapicus varius*
Downy Woodpecker, *Picoides pubescens*
Hairy Woodpecker, *Picoides villosus*
Red-cockaded Woodpecker, *Picoides borealis*

Northern Flicker, *Colaptes auratus*
Pileated Woodpecker, *Dryocopus pileatus*

Olive-sided Flycatcher, *Contopus borealis*
Eastern Wood-Pewee, *Contopus virens*
Yellow-bellied Flycatcher, *Empidonax flaviventris*
Acadian Flycatcher, *Empidonax virescens*
Alder Flycatcher, *Empidonax alnorum*
Willow Flycatcher, *Empidonax traillii*
Least Flycatcher, *Empidonax minimus*
Eastern Phoebe, *Sayornis phoebe*
Vermilion Flycatcher, *Pyrocephalus rubinus*
Great Crested Flycatcher, *Myiarchus crinitus*
Western Kingbird, *Tyrannus verticalis*
Eastern Kingbird, *Tyrannus tyrannus*
Scissor-tailed Flycatcher, *Tyrannus forficatus*

Horned Lark, *Eremophila alpestris*

Purple Martin, *Progne subis*
Tree Swallow, *Tachycineta bicolor*
Northern Rough-winged Swallow, *Stelgidopteryx serripennis*
Bank Swallow, *Riparia riparia*
Cliff Swallow, *Hirundo pyrrhonota*
Barn Swallow, *Hirundo rustica*

Blue Jay, *Cyanocitta cristata*
American Crow, *Corvus brachyrhynchos*
Fish Crow, *Corvus ossifragus*
Common Raven, *Corvus corax*

Black-capped Chickadee, *Parus atricapillus*
Carolina Chickadee, *Parus carolinensis*
Tufted Titmouse, *Parus bicolor*

Red-breasted Nuthatch, *Sitta canadensis*
White-breasted Nuthatch, *Sitta carolinensis*
Brown-headed Nuthatch, *Sitta pusilla*

Brown Creeper, *Certhia americana*

Rock Wren, *Salpinctes obsoletus*
Carolina Wren, *Thryothorus ludovicianus*
Bewick's Wren, *Thyromanes bewickii*
House Wren, *Troglodytes aedon*
Winter Wren, *Troglodytes troglodytes*
Sedge Wren, *Cistothorus platensis*
Marsh Wren, *Cistothorus palustris*

Golden-crowned Kinglet, *Regulus satrapa*
Ruby-crowned Kinglet, *Regulus calendula*
Blue-gray Gnatcatcher, *Polioptila caerulea*
Eastern Bluebird, *Sialia sialis*
Veery, *Catharus fuscescens*
Gray-cheeked Thrush, *Catharus minimus*
Swainson's Thrush, *Catharus ustulatus*
Hermit Thrush, *Catharus guttatus*
Wood Thrush, *Hylocichla mustelina*
American Robin, *Turdus migratorius*

Gray Catbird, *Dumetella carolinensis*
Northern Mockingbird, *Mimus polyglottos*
Brown Thrasher, *Toxostoma rufum*

Water Pipit, *Anthus spinoletta*
Sprague's Pipit, *Anthus spragueii*

Cedar Waxwing, *Bombycilla cedrorum*

Northern Shrike, *Lanius excubitor*
Loggerhead Shrike, *Lanius ludovicianus*

European Starling (I), *Sturnus vulgaris*

White-eyed Vireo, *Vireo griseus*
Bell's Vireo, *Vireo bellii*
Solitary Vireo, *Vireo solitarius*
Yellow-throated Vireo, *Vireo flavifrons*
Warbling Vireo, *Vireo gilvus*
Philadelphia Vireo, *Vireo philadelphicus*
Red-eyed Vireo, *Vireo olivaceus*

Blue-winged Warbler, *Vermivora pinus*
Golden-winged Warbler, *Vermivora chrysoptera*
Tennessee Warbler, *Vermivora peregrina*
Orange-crowned Warbler, *Vermivora celata*
Nashville Warbler, *Vermivora ruficapilla*
Northern Parula, *Parula americana*
Yellow Warbler, *Dendroica petechia*
Chestnut-sided Warbler, *Dendroica pensylvanica*
Magnolia Warbler, *Dendroica magnolia*
Cape May Warbler, *Dendroica tigrina*
Black-throated Blue Warbler, *Dendroica caerulescens*
Yellow-rumped Warbler, *Dendroica coronata*
Black-throated Gray Warbler, *Dendroica nigrescens*
Black-throated Green Warbler, *Dendroica virens*
Blackburnian Warbler, *Dendroica fusca*
Yellow-throated Warbler, *Dendroica dominica*
Pine Warbler, *Dendroica pinus*
Kirtland's Warbler (P), *Dendroica kirtlandii*
Prairie Warbler, *Dendroica discolor*
Palm Warbler, *Dendroica palmarum*
Bay-breasted Warbler, *Dendroica castanea*
Blackpoll Warbler, *Dendroica striata*
Cerulean Warbler, *Dendroica cerulea*
Black-and-white Warbler, *Mniotilta varia*
American Redstart, *Setophaga ruticilla*
Prothonotary Warbler, *Protonotaria citrea*
Worm-eating Warbler, *Helmitheros vermivorus*
Swainson's Warbler, *Limnothlypis swainsonii*
Ovenbird, *Seiurus aurocapillus*
Northern Waterthrush, *Seiurus noveboracensis*
Louisiana Waterthrush, *Seiurus motacilla*
Kentucky Warbler, *Oporornis formosus*
Connecticut Warbler, *Oporornis agilis*
Mourning Warbler, *Oporornis philadelphia*
Common Yellowthroat, *Geothylpis trichas*
Hooded Warbler, *Wilsonia citrina*
Wilson's Warbler, *Wilsonia pusilla*
Canada Warbler, *Wilsonia canadensis*
Yellow-breasted Chat, *Icteria virens*
Summer Tanager, *Piranga rubra*
Scarlet Tanager, *Piranga olivacea*
Western Tanager (P), *Piranga ludoviciana*
Northern Cardinal, *Cardinalis cardinalis*
Rose-breasted Grosbeak, *Pheucticus ludovicianus*
Black-headed Grosbeak, *Pheucticus melanocephalus*
Blue Grosbeak, *Guiraca caerulea*
Indigo Bunting, *Passerina cyanea*
Painted Bunting, *Passerina ciris*
Dickcissel, *Spiza americana*
Green-tailed Towhee, *Pipilo chlorurus*
Rufous-sided Towhee, *Pipilo erythrophthalmus*
Bachman's Sparrow, *Aimophila aestivalis*
American Tree Sparrow, *Spizella arborea*
Chipping Sparrow, *Spizella passerina*
Clay-colored Sparrow (P), *Spizella pallida*
Field Sparrow, *Spizella pusilla*
Vesper Sparrow, *Pooecetes gramineus*
Lark Sparrow, *Chondestes grammacus*
Lark Bunting, *Calamospiza melanocorys*
Savannah Sparrow, *Passerculus sandwichensis*
Grasshopper Sparrow, *Ammodramus savannarum*
Henslow's Sparrow, *Ammodramus henslowii*
Le Conte's Sparrow, *Ammodramus leconteii*
Sharp-tailed Sparrow, *Ammodramus caudacutus*

Fox Sparrow, *Passerella iliaca*
Song Sparrow, *Melospiza melodia*
Lincoln's Sparrow, *Melospiza lincolnii*
Swamp Sparrow, *Melospiza georgiana*
White-throated Sparrow, *Zonotrichia albicollis*
White-crowned Sparrow, *Zonotrichia leucophrys*
Harris' Sparrow, *Zonotrichia querula*
Dark-eyed Junco, *Junco hyemalis*
Lapland Longspur, *Calcarius lapponicus*
Smith's Longspur, *Calcarius pictus*
Snow Bunting, *Plectrophenax nivalis*
Bobolink, *Dolichonyx oryzivorus*
Red-winged Blackbird, *Agelaius phoeniceus*
Eastern Meadowlark, *Sturnella magna*
Western Meadowlark, *Sturnella neglecta*
Yellow-headed Blackbird, *Xanthocephalus xanthocephalus*
Rusty Blackbird, *Euphagus carolinus*
Brewer's Blackbird, *Euphagus cyanocephalus*
Common Grackle, *Quiscalus quiscula*
Brown-headed Cowbird, *Molothrus ater*
Orchard Oriole, *Icterus spurius*
Northern Oriole, *Icterus galbula*

Purple Finch, *Carpodacus purpureus*
House Finch (I), *Carpodacus mexicanus*
Red Crossbill, *Loxia curvirostra*
White-winged Crossbill, *Loxia leucoptera*
Common Redpoll, *Carduelis flammea*
Pine Siskin, *Carduelis pinus*
American Goldfinch, *Carduelis tristis*
Evening Grosbeak, *Coccothraustes vespertinus*

House Sparrow (I), *Passer domesticus*

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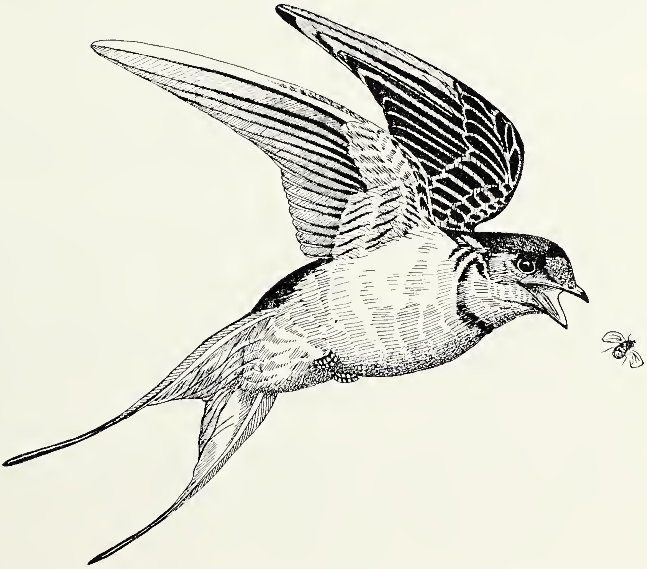


THE 1982 CHRISTMAS BIRD COUNT

RICHARD L. KNIGHT

This year 138 species were recorded on 25 counts across Tennessee. The species total has been surpassed only in 1971 and 1978, which each totaled 139 species, and equals the 1977 count. The number of counts conducted was the most since 1974, which had 24. Duck River Unit TNWR and Duck River Reservoir are new counts, although DRR appeared in *American Birds* last year. The Norris count is making its first appearance in *The Migrant* since 1974.

Temperatures for the count period, and for late fall - early winter in general, were mild. Ten of 22 counts reporting temperatures reached 50°F or above, with two of those exceeding 60°F. Four counts reported rain. Unusually, no counts reported snow cover.

Water birds were well represented. Western Grebe is most notable. Probable record numbers of Killdeer were found at Hiwassee and Chattanooga. Forty-five cormorants at Duck River Unit TNWR is also a probable CBC record for Tennessee. At most places, duck numbers were lower than average, due in part to the mild weather.

Diurnal raptors were also well represented. Rough-legged Hawk was found on seven counts and Merlin on two.

The mild weather had perhaps its greatest influence among the passerines. Phoebe, Pine Warbler, and Chipping Sparrow appeared in higher than average numbers. Species lingering later than usual include Marsh and Sedge Wrens, Solitary Vireo, three warbler species, Rose-breasted Grosbeak, and Lincoln's Sparrow. Low numbers of Red-breasted Nuthatches, Cedar Waxwings (except in the Chattanooga area), and Pine Siskins plus the absence of Evening Grosbeaks (except one count period record) echo the findings of the Kentucky CBCs reported by H. E. Shadowen *(Kentucky Warbler* 59:3-12, 1983).

INFORMATION ON THE COUNTS

MEMPHIS — 19 Dec.; 0700 to 1700; clear; temp. 45 to 52°F; wind SW, 15-20 mph; 35 observers in 13 parties; 125 party hours (94 on foot, 31 by car); 195 party miles (74 on foot, 121 by car).

Diane & William Bean, Carolyn Bullock, Fred Carney, Tina Carpenter, Robert Casey, Ben & Lula Coffey (compilers — 672 N. Belvedere, Memphis 38107), Dollyann Daily, Julian Darlington, Fred Dickson, Helen Dinkelspiel, Jack Embury, Jim Ferguson, Bob Ford, William Fowler, Joe Guinn, Robert & Ginger Ilardi, Susan Keeton, David Kessler, Gerald Papachristou, George R. Payne, Bill & Rob Peeples, Ernest Restivo, Marshall Sklar, Arlo & Noreen Smith, Richard Taylor, Phillip Waldon, Martha Waldron, Bobby & Wendell Whittemore, Jeff Wilson.

Least Sandpipers and Dunlins were present from fall through early January. Solitary Vireo and Orange-crowned Warbler are occasional in winter. Rose-breasted Grosbeak was an immature male. House Finch was at a feeder throughout December for the third Shelby County record.

REELFOOT LAKE — 18 Dec.; 0630 to 1630; cloudy, light rain; wind NW, 10-15 mph; 16 observers in 6 parties; 48 party hours (16 on foot, 22 by car, 10 by boat); 380 party miles (13 on foot, 352 by car, 15 by boat).

Diane Bean, Robert Clemmons, Ben & Lula Coffey, Wendell Crews, Dollyann Daily, Guy Hogg, Ken Leggett, Don & Gina Manning (compilers — P. O. Box 550, Bells 38006), George R. Payne, David Pitts, Michel Todd, Wendell Whittemore, Jim Wigginton, J. R. Wilson.

Five of the Snow Geese were of the blue form. The Golden Eagle was an adult. Sixty of the Bald Eagles were adults. Good details submitted for Bewick's Wren, Common Yellowthroat, and Vesper Sparrow.

DUCK RIVER UNIT, TENNESSEE NATIONAL WILDLIFE REFUGE — 31 Dec.; 0545 to 1715; clear to partly cloudy; temp. 25 to 48°F; wind calm; 5 observers in 2 parties; 19.5 party hours (10 on foot, 9.5 by car) plus 2.25 owling; 73 party miles (5 on foot, 68 by car).

Michael Bierly (compiler — 3825 Bedford Ave., Nashville 37215), Craig Empson, Tom Harston, Rocky Milburn, Jim Snapper.

250 of the Snow Geese were of the blue form. Seven of the Bald Eagles were adults. Common Yellowthroat was a male. Seen during count period: Horned Grebe, Common Snipe, Yellow-rumped Warbler.

BUFFALO RIVER — 29 Dec.; 0500 to 1700; partly cloudy; temp. 36 to 42°F; wind N, 0-10 mph; 13 observers in 5 parties; 50 party hours (10 on foot, 40 by car) plus 1 owling; 244 party miles (19 on foot, 225 by car) plus 2 owling.

David Beckman; Helen & Lloyd Clayton (compilers — Rt. 4, Box 175A, Lawrenceburg 38464); Bill Egley; Chester & Dot McConnell; Royce Neidert; Mark Reeves; Dennis Romans; Damien, Dawn & Don Simbeck; Wylie Willis.

CLARKSVILLE — 18 Dec.; mostly cloudy; temp. 28 to 36°F; 32 observers, 16 in 5 parties plus 16 at feeders.

Joe Allen, Ginny Clark, Barbara Cratty, Melinda Filson, Mike Filson (compiler — ?), Floyd Ford, Marian Greer, Scott Gunn, Phila Hach, Juanita Harris, Bill Hudson, Nancy Hughes, Ellen Hutchison, Mary Jackson, David Joiner, John Koons, Thurston Lee, Bill & Gloria Milliken, Hallena Minniehan, Evelyn Nixon, Edwin Peck, John Quick, Linda Richardson, Mary E. Rubel, Besse Sharpe, Ed Sullivan, Ellen & Woodrow Walker, Barbara Wilbur, Chris Wilson.

No details submitted for the Rough-legged Hawk.

ASHLAND CITY — 18 Dec.; 0430 to 1730; partly cloudy to overcast; temp. 27 to 54°F; wind S, 15-20 mph; 19 observers in 6 parties.

Jan Alexander, Jerry Drewry, John Ellis, Curtis Evans, Bill & Lucy Finch, Tom Harston, Margaret Mann, Rocky Milburn, Martha Patterson, Larry Raye, Betty Richards, Jim Snapper, Pat Stallings (compiler — 406 N. 17th St., Nashville 37206), Steve Stedman, Carol Stewart, Lawrence Trabue, David Vogt, Miriam Weinstein.

Good details submitted for the Rough-legged Hawk, Golden Eagle (immature), and LeConte's Sparrow (two parties). The Bald Eagle was an adult, and an immature was seen during the count period.

COLUMBIA — 18 Dec.; 0600 to 1700; mostly clear to overcast; temp. 30 to 50°F; wind S, 0-10 mph; 13 observers, 10 in 5 parties plus 3 at feeders; 41 party hours (13 on foot, 28 by car) plus 8 at feeders, 1 owling; 325 party miles (14 on foot, 311 by car) plus 3 owling.

Kenneth Anderson, William Fuqua, Daniel Gray, Phyllis Herrmann, William Jernigan, Allyn Lay, Anne & Bedford Lochridge, Mary Lyles, Cleo & George Mayfield Jr. (compilers — 999 Sunnyside Dr., Columbia 38401), Allen Pressnell, Mitzi Thornell.

No details submitted for the Rough-legged Hawk. Seen during count period: Rose-breasted Grosbeak (immature male).

DUCK RIVER RESERVOIR — 2 Jan.; overcast, intermittent rain; temp. 37 to 41°F; 17 observers, 15 in 9 parties plus 2 at feeders; 35.25 party hours (18.75 on foot, 14.5 by car, 2 by boat) plus 9 at feeders, 4.5 owling; 240.25 party miles (10.25 on foot, 226 by car, 4 by boat) plus 40 owling.

Kenneth Anderson; Nancy Beyer; Dot & Ed Byassee; Dan Gray; Dan Gray III; Bill Jernigan; Anne & Bedford Lochridge; Henry & Mary Lyles; George, Mark & Rad Mayfield; Allen Pressnell (compiler — Rt. 5, Box 261, Columbia 38401); Diane Pressnell; Mitzi Thornell.

No details submitted for the Rough-legged Hawk, Merlin, or Common Yellowthroat.

NASHVILLE — 26 Dec.; 0545 to 1700; fog, moderate to heavy rain with heavy flooding; temp. 55 to 65°F; wind S, 10 mph; 42 observers, 35 in 8-12 parties plus 7 at feeders; 88 party hours (45 on foot, 43 by car) plus 14 at feeders; 364 party miles (32 on foot, 332 by car).

Polly Clarke, Jean Cobb, Annella Creech, Deryk Davidson, Jerry Drewry, Clifton Dunn, Milbrey Dugger, John Ellis, Curtis Evans, Charles Farrell, Clara Fentress, John & Karen Filley, George Freeman, Katherine Goodpasture, Mary Ann & Tom Guschke, Barbara Harris, Bob Hatcher, Victor Janson, Victoria Janson, Adine Lyon, Margaret Mann, Jane Maynard, Rocky Milburn, Terry Murray, Marjorie & Oscar Patrick, Virginia Price, Sharon & Steve Rannels, Larry Raye, James Robertson, Jim Snapper, Pat Stallings, Helen Sterling, Ann Tarbell (compiler — 6033 Sherwood Dr., Nashville 37215), Dee Thompson, David Vogt, Miriam Weinstein, Cliff Whitehead, Hardy Wilcoxon.

Sedge Wren well described. Common Yellowthroat identified by "wichety-wichety" song only. Seen during count period: American Black Duck, Gadwall, Cooper's Hawk, Common Snipe, Great Horned Owl.

HICKORY-PRIEST — 1 Jan.; 0500 to 1700; cloudy; temp. 30 to 47°F; wind NE, 10 mph; 29 observers, 25 in 7 parties plus 4 at feeders.

Frances Abernathy; Jan Alexander; Linda Anderson; Annella Creech; Jerry Drewry; Milbrey Dugger; Clifton Dunn; Beth Evans; Curtis Evans; Mary Ann & Tom Guschke; Louise Jackson; Vicki Janson; Carol Knauth; Carol, Hazel & Lee

Kramer; Margaret Mann; Kathy & Rocky Milburn; Dick Newton; Steve Rannels; Larry Raye; Jim Snapper; Pat Stallings (compiler); Ellen Stringer; Ann Tarbell; David Vogt; Miriam Weinstein.

Good details on Western Grebe and Palm Warblers (two parties). Seen during count period: Double-crested Cormorant, Lesser Scaup, Sharp-shinned Hawk, Sora, Evening Grosbeak.

MURFREESBORO — 18 Dec.; clear; temp. 27 to 53°F; wind light; 14 observers.

Bertha Chrietzberg, Lou Erwin, C. G. Greever, Edith Haynes, Anne Hettish (compiler — 1018 Lawndale, Murfreesboro 37130), Wilma J. Hunter, Jenny Justice, Pat Martin, Larry McFarlin, Gene & Ruth Odom, John Patten, Frances Vaughan, Terry Witt.

A flock of 300+ House Finches was observed in a weedy field.

LEBANON — 18 Dec.; 0650 to 1630 (owling — midnight to 0300); clear; temp. 25 to 51°F; wind NW, 0-5 mph; 14 observers, 9 in 4 parties plus 5 at feeders; 29.5 party hours (13 on foot, 16.5 by car) plus 4 at feeders, 3 owling; 180 party miles (12 on foot, 168 by car) plus 20 owling.

Mr. & Mrs. Vernon Berry, Melissa Cannon, Agnes Crawford, Fred Detlefsen, W. R. McKee, Ruth McMillan, Bryan Moore, Paulette & Ray Pope, Jeff Reed, Alice Savage, William Senter (compiler — 313 West Hills Dr., Lebanon 37087), Grace Speck.

Good details submitted for Tundra Swan and Rough-legged Hawk. Seen during count period: Green-winged Teal, Redhead, Ruddy Duck, American Woodcock. Hawk species (1) was omitted from the table.

LEBANON (1981) — 19 Dec.; 0700 to 1700 (owling — midnight to 0200 and 1900 to 2400); clear; temp. 11 to 26°F; wind NW, 5-10 mph; 13 observers, 11 in 5 parties plus 2 at feeders; 50 party hours (4 on foot, 46 by car) plus 3 at feeders, 7 owling; 200 party miles (4 on foot, 196 by car) plus 40 owling.

Mr. & Mrs. Vernon Berry, Melissa Cannon, Fred Detlefsen, Robert Hosier, Ruth McMillan, Ray Pope, Jeff Reed, Alice Savage, Bill See, William Senter (compiler). Names of two feeder watchers not submitted.

Good details submitted for Rough-legged Hawk. The high count for all owls, especially Barred, is notable. Seen during count period: American Woodcock.

This count did not appear in last year's compilation. It adds no new species to the 1981 total.

HIGHLAND RIM — 29 Dec.; partly cloudy; temp. 32 to 48°F; 12 observers in 5 parties.

Carol & Stan Barr, Kay Cleckley, Marjory Harper, Jerry Ingle, Frances & Phillip Luther Medley, Erma Rogers, Mary E. Shelton, Lillie Willard (compiler — 100 N. Washington, 2D, Tullahoma 37388), Evelyn Wilson, Wanda Winnett.

Two of the Bald Eagles were adults.

COOKEVILLE — 31 Dec.; 0630 to 1630; overcast; "cool & damp"; 7 observers in 5 parties.

Frances & Lorne Crossman, Amy Johnson, Mildred Lassiter, Miser Richmond (compiler — 519 N. Jefferson, Cookeville 38501), R. W. Simmers, Florence Williams.

Black-capped Chickadee (6) deleted — no details.

PICKETT COUNTY — 29 Dec.; 0700 to 1900; cloudy; temp. 38 to 45°F; wind light; 2 observers in 1 party; 25 miles by car.

David & Robbie Hassler (compilers — Box 1, Byrdstown 38549).

Four of the Bald Eagles were adults.

CHATTANOOGA — 18 Dec.; 0130 to 1800; partly cloudy; temp. 23 to 50°F; wind W, 0-5 mph; 32 observers, 27-32 in 7-10 parties plus 0-5 at feeders; 84 party hours (54 on foot, 30 by car) plus 20 at feeders, 10 owling; 405 party miles (38 on foot, 367 by car) plus 45 owling.

Benton & Peggy Basham, Judy & Katherine Boyles, Edith Bromley, Ed Darr, Kathy Davidson, Angela Davis, Ken & Lil Dubke, Susan Gilbert, Gary Hartman, Al Jenkins, Billy Johnson, Lenny Kafka, Starr Klein, Sandy Kurtz, Dave Mathewson, Barbara & Mike McMahan, Johnny Parks, Peter Robinson, Robin Rudd, Gene Ryther, Jo Stone, Randy Stringer (compiler — 758 Emory Dr., Chattanooga 37415), Bruce Wilkey. Five other names not submitted.

Caribbean Coot in same location as last year. Good details submitted for Spotted Sandpiper. Palm Warblers have been observed in the Chattanooga area for the last four years during the CBC period. Grasshopper Sparrow found in same field as last year. Seen during count period: Bald Eagle, Turkey, Barred Owl.

HIWASSEE — 1 Jan.; 0530 to 1800; overcast; temp. 35 to 47°F; wind W, 0-5 mph; 20 observers in 8 parties; 65 party hours (45 on foot, 20 by car); 456 party miles (44 on foot, 412 by car).

Nelson Bennett, Katherine Boyles, Angela Davis, John Doyal, Ken & Lil Dubke, Chris Haney, Audrey & Ron Hoff, Al Jenkins, Tony Koella, Chuck Nicholson, Pam Pinckeny, Peter Robinson, Robin Rudd, Boyd Sharp, Barbara & Steve Stedman, Randy Stringer (compiler), Dale Taylor.

Two of the Snow Geese were of the blue form. Four of the Bald Eagles were adults. The number of bluebirds is notable. Good details submitted for Marsh Wren, Common Yellowthroat (two parties), Tree Sparrow, and Lincoln's Sparrow (direct comparison with Savannah & Song Sparrows). Seen during count period: Osprey. Duck species (100) omitted from the table.

NORRIS — 31 Dec.; 0630 to 1700; cloudy; temp. 30 to 45°F; wind calm; 13 observers in 7 parties; 43 party hours (22 on foot, 20 by car, 1 by plane); 273 party miles (29 on foot, 184 by car, 60 by plane).

Laurie & Mark Armstrong, Brian & Marian Baxter, Gordon Hall, Don & Joan Hammer (compilers — 127 Orchard Rd., Norris 37828), Dave Hankins, Dave Highbaugh, Charles Nicholson, Frances Olson, Paul Pardue, Boyd Sharp.

Three of the Bald Eagles were adults. Details submitted for Rough-legged Hawk and Osprey.

KNOXVILLE — 18 Dec.; 0345 to 1815; partly cloudy to clear; temp. 22 to 46°F; 31 observers in 13 parties; 120 party hours (69 on foot, 46 by car, 5 by boat) plus 10 owling; 678 party miles (64 on foot, 588 by car, 26 by boat) plus 80 owling.

Winifred Brown, Fae Burkhardt, Bill Cowart, Marcia Davis, Barbara Finney, Linda Fowler, Chris Hamilton, Rebecca Hammitt, David Hankins, Lavada & R. W. Harris, Paul Hartigan, David Highbaugh, Audrey & Ronald Hoff, J. C. Howell, Hal Hubbs, Tony Koella, Gregg Lagerberg, Kenneth McLain, Charles Nicholson, Holly Overton, J. B. Owen, Paul Pardue, Hugh Parker, Linda Pocratsky, Mark Reeves, Stephen Satterfield, Boyd Sharp, Nancy Sheperd, James Tanner (compiler — Rt. 28, Box 155, Knoxville 37920).

Good details submitted for Merlin and House Wren. Seen during count period: Green-backed Heron.

GREAT SMOKY MOUNTAINS NATIONAL PARK — 2 Jan.; 0600 to 1750; overcast, light rain most of the day; temp. 34 to 51°F; wind light, with gusts to 15 mph at high elevations; 32 observers in 15 parties; 95.5 party hours (68 on foot, 27.5 by car); 279.5 party miles (77 on foot, 202.5 by car).

Winifred Brown, John Burkhardt, Jim & Betty Reid Campbell, Howard Chitwood, Marcia Davis, Don DeFoe (compiler — Great Smoky Mountains National Park, Gatlinburg 37738), Katherine Foster, Linda & Dale Fowler, Chris Hamilton, Rebecca Hammitt, Paula Hawley, Paul Hartigan, David Highbaugh, Joe Howell, Elizabeth & Hal Hubbs, Tony Koella, Ken McLean, Bill McNutt, Chuck Nicholson, Holly Overton, J. B. Owen, Truett Patterson, Steve Roberts, Stephen Satterfield, Boyd Sharp, Nancy Sheperd, Lillian Smathers, Jim Tanner, John Watson.

The chickadees were a mixture of Carolina and Black-capped.

GREENEVILLE — 29 Dec.; 0800 to 1700; cloudy; temp. 41 to 45°F; 12 observers in 4 parties; 24.5 party hours, plus 4 at feeders; 104.5 party miles (5.5 on foot, 95 by car, 4 by canoe).

Ben Britton, King & Margaret Gaut, Richard & Willie Ruth Nevius, Violet Parr, Velma Presley, Doug Ratledge, Fred Simpson, Helen & Royal Spees (compiler — P. O. Box 356, Greeneville 37743), Virginia Williams.

Satisfactory details on the Rough-legged Hawk. No estimate of numbers in a roost of Starlings and blackbirds. Seen during count period: Common Snipe, Horned Lark, Brewer's Blackbird (no details), and Lincoln's Sparrow (inconclusive details).

KINGSPORT — 1 Jan.; 7 observers. Other information not submitted.

Fred Alsop, Dee Eiklor, Tom Finucane (compiler — 1434 Watauga St., Kingsport 37660), Charles Hasbrouck, Betsey Oglesby, E. E. Scott, Arthur Smith.

BRISTOL — 1 Jan.; 0630 to 1810; clear to overcast; temp. 35 to 50°F; 10 observers in 4 parties; 33 party hours (14 on foot, 19 by car) plus 1 owling; 260 party miles (10 on foot, 250 by car) plus 7 owling.

Wallace Coffey; Bert, Ken & Loraine Hale; Joe, Kristen & Laura Jackson; Rick Knight; Tom Laughlin; Richard Lewis (compiler — Rt. 3, Box 470, Bristol 37620).

ELIZABETHTON — 18 Dec.; 0430 to 1730; clear to partly cloudy; temp. 19 to 45°F; wind light; 20 observers in 6 parties; 54 party hours (25.5 on foot, 28.5 by car) plus 3 owling; 314.5 party miles (20.5 on foot, 294 by car) plus 12 owling.

Kat Bireley, Martha Dillenbeck, Helenhill Dove, Glen Eller (compiler — Rt. 3, Grandview Terrace, Elizabethton 37643), Harry Farthing, Elizabeth Funkhouser, Sally Goodin, Dick Hegler, Ralph Keffer, Rick Knight, Joy Kyle, Gary Lewis, Richard & Vickie Lewis, Dick Lura, Ed Schell, Arthur Smith, Glenn Swofford, Gary Wallace, Jane Whitehead.

Good details submitted for House Wren.

ROAN MOUNTAIN — 26 Dec.; 0645 to 1615; overcast, fog at high elevations most of day; temp. 46 to 62°F; wind gusty at high elevations; 6 observers in 3 parties; 23 party hours (9 on foot, 14 by car) plus 1 owling; 145 party miles (13 on foot, 132 by car) plus 7 owling.

Glen Eller (compiler), Harry Farthing, Rick Knight, Richard & Vickie Lewis, Ed Schell.

THE 1982 CHRISTMAS BIRD COUNT

	Memp	Reel	DRU	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	1981 Leba	High	Cook	Pick	Chat	Hiwa	Norr	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Common Loon	--	2	--	--	--	--	--	--	--	21	1	1	--	12	--	--	11	--	--	1	--	--	1	3	1	--
Pied-billed Grebe	5	9	36	1	2	3	10	--	2	23	1	8	5	39	--	--	118	39	4	12	--	--	--	1	2	--
Horned Grebe	--	--	--	--	--	--	--	--	--	53	--	--	--	8	--	--	56	--	--	1	--	--	--	--	1	--
Western Grebe	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dbl.-cr. Cormorant	--	10	45	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Great Blue Heron	3	41	108	2	8	57	26	1	6	29	2	51	41	1	--	--	34	170	13	148	2	9	24	7	4	--
Green-backed Heron	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Blk.-cr. Night-Heron	--	--	--	--	--	--	--	--	--	6	--	--	--	--	--	--	--	1	--	16	9	--	28	--	--	--
Tundra Swan	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gr. White-fr. Goose	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Snow Goose	--	7*	400*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4*	--	--	--	--	--	--	--	--
Canada Goose	--	14M	25M	45	24	434	135	2	21	888	--	941	787	288	--	--	--	740	136	172	--	31	--	11	--	--
Wood Duck	--	35	1	--	--	8	--	4	5	2	--	13	9	--	--	--	34	--	3	--	1	10	--	--	1	--
Green-winged Teal	--	60	39	--	--	30	16	--	--	--	--	--	100	--	--	--	--	2000	8	--	--	--	--	2	--	--
Amer. Black Duck	2	300	2000	2	--	450	41	2	--	--	--	348	2400	--	--	--	15	4000	46	--	--	75	5	20	10	--
Mallard	234	62M	6000	23	--	2200	110	5	274	212	--	3600	4900	110	--	--	111	8100	68	12	--	576	270	108	21	--
Northern Pintail	--	15	9000	--	--	5	--	--	--	--	--	105	85	--	--	--	--	351	--	--	--	--	--	2	--	--
Blue-winged Teal	--	5	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Shoveler	--	10	5	--	--	5	3	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Gadwall	--	1800	3000	--	1	39	42	--	--	2	--	685	85	2	--	4	139	325	18	45	--	6	17	9	--	--
American Wigeon	--	200	4000	--	--	12	20	--	70	--	--	852	1000	20	--	--	17	528	14	2	--	3	--	6	1	--
Canvasback	--	--	18	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--
Redhead	--	3	--	--	--	--	1	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Ring-necked Duck	1	90	165	15	--	8	202	--	--	--	--	65	69	1	--	--	22	250	--	1	--	20	4	9	7	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	177	--	--	--	--	--	--	--	--	--
Lesser Scaup	1	--	4	--	--	1	6	--	68	--	--	2	18	17	--	--	19	7	4	--	--	--	--	2	9	--
Scaup sp.	--	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Goldeneye	2	10	--	5	--	1	3	--	4	6	3	--	--	5	--	--	124	--	27	1	--	--	--	--	--	--
Bufflehead	--	50	10	12	--	--	--	--	50	2	--	--	--	--	--	--	17	--	6	7	--	2	--	18	46	--
Hooded Merganser	3	10	36	--	--	--	--	--	--	--	--	54	59	--	--	--	4	200	--	30	--	--	--	--	--	--
Common Merganser	--	2	--	--	--	--	--	--	--	1	--	--	--	1	--	--	1	--	--	--	--	--	--	--	1	--
Red-br. Merganser	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	8	3	--	--	--	--	--	3	--	--
Ruddy Duck	--	450	--	--	--	--	2	--	--	--	--	--	--	--	--	--	23	--	--	--	--	--	--	2	1	--
Black Vulture	--	24	--	24	15	58	220	98	19	--	5	30	54	1	--	--	--	18	--	--	--	21	5	47	--	--
Turkey Vulture	1	2	--	34	24	167	2	1	15	--	7	9	29	--	5	--	24	45	6	2	12	49	13	35	--	--
Osprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--
Bald Eagle	--	107*	32*	--	--	1*	--	--	--	--	--	--	--	3*	--	7*	--	6*	4*	--	--	--	--	--	--	--
Northern Harrier	8	2	2	4	1	5	2	3	5	--	2	1	3	1	--	--	1	6	--	3	--	3	--	--	--	--
Sharp-shinned Hawk	2	--	1	--	--	5	--	1	--	--	--	--	--	--	--	--	3	3	1	1	--	--	1	--	2	1
Cooper's Hawk	--	--	1	--	1	1	1	1	--	2	1	--	--	--	--	--	1	4	3	2	1	4	2	2	2	--

THE 1982 CHRISTMAS BIRD COUNT

	Memp	Reel	DRU	Buf	Clar	Ashl	[illegible]	[illegible]	Nash	[illegible]	Murf	Leba	1981 Leba	High	Cook	Pick	Chat	Hiwa	Norr	Knox	GSMNP	Gree	King	Bris	Eliz	Roan
Common Loon	--	2	--	--	--	--	--	--	--			1	--	12	--	--	[illegible]	--	--	1	--	--	1	3	1	--
Pied-billed Grebe	5	9	36	1	2	3		--			1	8	5	39	--	--	113	39	4	17	--	--	--	1	2	--
Horned Grebe	--	--	--	--	--	--	--	--	--	1	--	--	--	8	--	--	56	--	--	1	--	--	--	--	1	--
Western Grebe	--	--	--	--	--	--	-	--	--	1•	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dbl.-cr. Cormorant	--	10	45	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Great Blue Heron	3	41	108		[illegible]	[illegible]7	26		6	29		51	41	1	--	--	34	170	13	148		9	24	7	4	--
Green-backed Heron	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Blk.-cr. Night-Heron	--	--	--	--	--	--	--	--	--	6	--	--	--	--	--	--	--	1	--	16	9	--	28	--	--	--
Tundra Swan	--	--	--	--	--	--	--	--	--	--	--	1•	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gr. White-fr. Goose	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Snow Goose	--	7•	400•	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4•	--	--	--	--	--	--	--	--
Canada Goose	--	14M	25M	45	[illegible]	[illegible]	[illegible]		1	888	--	941	787	288	--	--	--	740	136	172	--	31	--	11	--	--
Wood Duck	--	35	1	--	--	[illegible]	--		[illegible]	2	--	13	9	--	--	--	34	--	3	--	1	10	--	--	1	--
Green-winged Teal	--	60	39	--	--	[illegible]	16	--	--	--	--	--	100	--	--	--	--	[illegible]000	8	--	--	--	--	2	--	--
Amer. Black Duck	2	300	2000		--	[illegible]	41		--	--	--	348	2400	--	--	--	15	4000	46	--	--	75	5	20	10	--
Mallard	234	624	6000	23	--	[illegible]	110	[illegible]	14	1	--	[illegible]	4900	110	--	--	111	8100	68	1[illegible]	--	576	270	108	21	--
Northern Pintail	--	15	9000	--	--	[illegible]	--	--	--	--	--	105	[illegible]	--	--	--	--	351	--	--	--	--	--	2	--	--
Blue-winged Teal	--	5	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Shoveler	--	10	5	--	--	[illegible]	[illegible]	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Gadwall	--	1800	3000	--	1	[illegible]	4[illegible]	--	--		--	135	85	2	--	4	139	325	18	45	--	6	17	9	--	--
American Wigeon	--	200	4000	--	--	1[illegible]	[illegible]0	--	7[illegible]	--	--	852	1000	20	--	--	17	528	14		--	3	--	6	1	--
Canvasback	--	--	18	--	--	--	[illegible]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--
Redhead	--	3	--	--	--	--	1	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Ring-necked Duck	1	90	165	15	--	8	[illegible]	--	--	--	--	65	69	1	--	--	22	250	--	1	--	20	4	9	7	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	177	--	--	--	--	--	--	--	--	--
Lesser Scaup	1	--	4	--	--	1	6	--	68	--	--	2	18	17	--	--	19	7	4	--	--	--	--	2	9	--
Scaup sp.	--	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Goldeneye	2	10	--	5	--	1	3	--	4	6	3	--	--	5	--	--	124	--	27	1	--	--	--	--	--	--
Bufflehead	--	50	10	12	--	--	--	--	50	2	--	--	--	--	--	--	17	--	6	7	--	2	--	18	46	--
Hooded Merganser	3	10	36	--	--	--	--	--	--	--	--	54	59	--	--	--	4	200	--	30	--	--	--	--	--	--
Common Merganser	--	2	--	--	--	--	--	--	--	1	--	--	--	1	--	--	1	--	--	--	--	--	--	--	1	--
Red-br. Merganser	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	8	3	--	--	--	--	--	3	--	--
Ruddy Duck	--	450	--	--	--	--	2	--	--	--	--	--	--	--	--	--	23	--	--	--	--	--	--	2	1	--
Black Vulture	--	24	--	24	15	58	220	98	19	--	5	30	54	1	--	--	--	18	--	--	--	21	5	47	--	--
Turkey Vulture	1	2	--	34	24	167	2	1	15	--	7	9	29	--	5	--	24	45	6	2	12	49	13	35	--	--
Osprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1•	--	--	--	--	--	--	--
Bald Eagle	--	107•	32•	--	--	1•	--	--	--	--	--	--	--	3•	--	7•	--	6•	4•	--	--	--	--	--	--	--
Northern Harrier	8	2	2	4	1	5	2		5	--	2	1	3	1	--	--	1	6	--	3	--	3	--	--	--	--
Sharp-shinned Hawk	2	--	1	--	--		--	1	--	--	--	--	--	--	--	--	3	3	1	1	--	--	1	--	2	1
Cooper's Hawk	--	--	1	--	1	1	1	1	--	2	1	--	--	--	--	--	1	4	3	2	1	4	2	2	2	--

	Memp	Reel	DRU	Buff	Clar	Ashl	[illegible]	[illegible]	[illegible]	[illegible]	Murf	Leba	1981 Leba	High	Cook	[illegible]	Chat	Hiwa	Norr	Knox	GSMNP	Gree	King	Bris	Eliz	Roan
Accipiter sp.	--	--	--	--	--	--		--	--	--	--	--	--	--	1	--	[illegible]	--	--	--	--	--	--	--	--	--
Red-shouldered Hawk	--	13	[illegible]	--	7	15	--		1	1	--	--	2	--	--	1	4	15	1	1	1	1	2	--	--	--
Red-tailed Hawk	62	29	11	13	25	30	[illegible]4	16	[illegible]		18	30	21	9		7	36	28	8	31	--	3	10	6	5	1
Rough-legged Hawk	--	--	--	--	1•	1•	1•	1•	--	--	--	1•	1•	--	--	--	--	--	1•	--	--	1•	--	--	--	--
Buteo sp.	--	--	2	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden Eagle	--	1•	--	--	--	1•	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Kestrel	24	42	5	13	22	47	45	28	[illegible]	[illegible]7	51	32	25	17	5	6	[illegible]	19	9	22	9	8	8	36	8	--
Merlin	--	--	--	--	--	--	--	1•	--	--	--	--	--	--	--	--	--	--	--	1•	--	--	--	--	--	--
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8	--	--	--	1	--
Wild Turkey	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Bobwhite	174	6	20	4	38	83	85	[illegible]4	[illegible]0	82	18	42	5	12	--	--	16	2	12	24	--	14	1	1	4	--
Virginia Rail	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sora	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	66	550	26		--	6	88	--	--	116	1	157	10	--	--	62	1400	[illegible]00	--	516	--	1	52	62	--	--
Caribbean Coot	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1•	--	--	--	--	--	--	--	--	--
Killdeer	267	33	3	9	13	60	6	7	83	27	14	16	13	4	--	2	534	565	112	137	--	2	15	21	8	--
Spotted Sandpiper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1•	--	--	--	--	--	--	--	--	--
Least Sandpiper	125•	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	--	--	--	--	--	--	--
Dunlin	12•	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
Common Snipe	19	1	--	15	--	12	6	1	--	44	1	3	1	--	--	--	14	38	1	15	--	--	--	1	4	--
American Woodcock	1	--	2	--	--	2	--	2	1	3	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--
Bonaparte's Gull	--	9	7	--	--	--	--	--	--	30	--	--	--	--	--	--	1	--	--	9	--	--	--	--	--	--
Ring-billed Gull	85	193	150	--	--	35	53	--	--	538	--	23	57	108	--	7	373	140	30	659	--	--	17	15	--	--
Herring Gull	2	22		--	3	--	--	--	--	2	--	8	1	--	--	--	18	4	--	1	--	--	--	--	--	--
Rock Dove	1	67	60	73	68	56	74	85	95	23	50	156	67	51	--	2	1200	9	167	319	20	18	231	41	237	4
Mourning Dove	548	50	47	232	222	362	72	71	545	341	80	141	197	66	26	23	366	318	117	611	261	202	80	251	158	--
Barn Owl	3	--	--	--	1	--	--	1	--	--	--	3	3	--	--	--	--	--	--	--	--	1	--	--	--	--
Eastern Screech-Owl	--	[illegible]	1	--	--	2	3	16	3	2	9	19	--	--	1	--	1	2	1	23	2	1	--	2	5	1
Great Horned Owl	1	--	2	5	--	6	5	11	--	1	--	4	10	--	1	1	1	7	1	4	2	3	--	1	1	1
Barred Owl	2	4	1	2	1	7	1	6	1	1	--	9	24	--	1	1	--	--	2	--	--	--	--	--	--	--
Belted Kingfisher	9	12	12	11	17	20	[illegible]1	11	2	19	7	12	11	11	2	--	[illegible]	42	9	60	15	4	14	15	8	2
Red-headed Woodpecker	19	17	1	8	10	8	4	--	--	--	--	1	4	1	1	14	--	--	--	--	--	--	--	--	--	--
Red-bellied Woodpecker	101	95	12	29	6	56	25	51	45	26	14	14	12	11	15	9	29	44	9	37	5	14	7	6	13	--
Yellow-bel. Sapsucker	29	32	1	4	13	5	4	4	5	6	3	3	5	1	3	1	29	12	2	15	8	--	1	1	7	1
Downy Woodpecker	47	73	33	14	71	40	57	41	96	49	11	20	15	7	6	6	45	45	17	44	31	31	25	16	37	8
Hairy Woodpecker	6	15	2	16	15	5	12	8	15	17	8	4	4	--	--	1	6	14	2	5	5	--	7	1	4	1
Northern Flicker	151	132	16	12	52	47	16	32	35	37	16	9	32	17	3	10	57	49	18	28	4	8	7	17	7	--
Pileated Woodpecker	16	60	3	15	20	31	14	11	13	20	--	3	2	--	1	3	18	2[illegible]	15	26	14	7	8	7	9	--
Eastern Phoebe	1	--	--	5	1	3	--	3	1	--	--	2	--	--	3	1	1	[illegible]4	2	2	4	1	2	1	10	1
Horned Lark	43	50	50	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	8	--	--	--	--	--	--
Blue Jay	307	111	22	94	206	86	48	87	164	122	48	132	139	159	55	10	135	383	162	292	88	83	77	137	172	3
American Crow	209	573	95	172	184	712	87	308	100	155	164	151	112	277	35	25	493	1200	461	1800	288	228	142	455	860	38
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	5	4
Black-cap. Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20[illegible]	--	--	--	--	--
Carolina Chickadee	229	283	86	104	173	94	121	19[illegible]	[illegible]99	159	52	116	56	15	30	14	177	215	117	[illegible]88	•	103	92	101	131	39

	Memp	Reel	DRU	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	[illegible]	[illegible]	[illegible]	[illegible]	Pick	Chat	Hiwa	Norr	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Tufted Titmouse	113	[illegible]	[illegible]	53	192	77	97	[illegible]	[illegible]	78	[illegible]	[illegible]	41	[illegible]	16	[illegible]	112	91	50	[illegible]	83	73	91	29	117	14
Red-breasted Nuthatch	4	1	--	3	4	1	--	--	[illegible]	--	--	[illegible]	--	[illegible]	--	--	5	4	--	4	4	2	--	2	1	1
White-br. Nuthatch	--	4	9	29	34	[illegible]	6	5	46	[illegible]	--	[illegible]	--	[illegible]	11	9	59	18	19	36	40	19	24	26	43	6
Brown-headed Nuthatch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	[illegible]	--	--	--	--	--	--	--	--	--
Brown Creeper	10	9	4	4	6	6	4	5	19	[illegible]	[illegible]	[illegible]	1	--	2	--	12	4	2	7	14	3	3	--	3	2
Carolina Wren	142	107	27	[illegible]	67	66	35	35	139	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	9	110	14	59	171	47	23	39	28	88	12
Bewick's Wren	--	1*	--	--	--	--	1	[illegible]	1	--	[illegible]	[illegible]	[illegible]	--	--	--	--	--	--	--	--	--	--	--	--	--
House Wren	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	1*	--
Winter Wren	10	21	5	1	3	5	1	2	[illegible]	[illegible]	[illegible]	[illegible]	--	--	5	--	4	1	9	4	[illegible]	--	8	--	--	--
Sedge Wren	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Marsh Wren	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--
Golden-crowned Kinglet	76	20	17	34	20	3	6	36	39	[illegible]	--	[illegible]	[illegible]	[illegible]	7	[illegible]	42	[illegible]	51	[illegible]	193	4	18	60	39	9
Ruby-crowned Kinglet	33	17	14	10	[illegible]	3	3	8	4	[illegible]	[illegible]	3	[illegible]	--	--	--	13	34	10	[illegible]	[illegible]	15	3	--	5	--
Eastern Bluebird	1	8	51	64	43	54	76	91	5	[illegible]	[illegible]	4	[illegible]	44	27	24	166	[illegible]	86	13	15	28	32	78	38	12
Hermit Thrush	8	13	9	3	--	4	3	13	[illegible]	[illegible]	--	[illegible]	[illegible]	--	3	--	7	[illegible]	1	[illegible]	--	--	1	--	5	--
American Robin	638	46	29	35	[illegible]	44	9	60	[illegible]	[illegible]	[illegible]	[illegible]	95	4	46	11	478	133	14	[illegible]	7	21	63	9	1	4
Gray Catbird	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Mockingbird	154	38	22	81	113	69	41	55	176	135	75	64	38	[illegible]	13	5	134	[illegible]	45	219	22	36	21	91	69	3
Brown Thrasher	38	8	3	5	1	2	1	3	4	[illegible]	7	1	--	[illegible]	5	--	19	[illegible]	2	8	1	1	2	--	1	--
Water Pipit	--	--	[illegible]	--	--	--	--	--	--	--	--	--	--	--	--	--	20	[illegible]	--	74	--	--	--	--	--	--
Cedar Waxwing	35	16	--	--	9	3	--	16	--	30	--	60	[illegible]	--	--	14	447	[illegible]	1	31	--	--	51	--	--	--
Loggerhead Shrike	[illegible]	19	7	21	[illegible]	30	16	[illegible]	[illegible]	9	10	9	[illegible]	[illegible]	1	[illegible]	5	1	3	2	2	2	--	2	3	--
European Starling	4200	2400	541	7700	100	1600	[illegible]	605	4600	4400	104	249	11	[illegible]	985	369	[illegible]	[illegible]	831	[illegible]	11	M*	779	3400	1600	18
Solitary Vireo	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orange-cr. Warbler	[illegible]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow-r. Warbler	110	163	--	--	11	8	8	[illegible]	5	10	4	12	18	--	--	3	67	125	11	42	18	2	22	--	17	--
Pine Warbler	5	--	--	--	--	--	--	4	--	--	4	--	--	--	--	--	11	9	--	--	--	--	--	--	--	--
Palm Warbler	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	[illegible]	--	--	--	--	--	--	--	--	--
Common Yellowthroat	--	[illegible]	1*	--	--	--	--	1*	1*	--	--	--	--	--	--	--	--	[illegible]	--	--	--	--	--	--	--	--
Northern Cardinal	480	492	[illegible]	160	365	421	118	445	548	434	138	193	130	92	88	78	145	336	140	427	119	102	92	78	163	5
Rose-breasted Grosbeak	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rufous-s. Towhee	69	5	39	45	111	42	24	52	83	61	24	26	23	14	24	1	68	101	19	86	12	7	17	9	19	--
Amer. Tree Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--
Chipping Sparrow	--	[illegible]	[illegible]	--	--	--	--	--	--	--	--	8	--	--	12	--	2	21	--	2	--	--	--	--	--	--
Field Sparrow	395	67	[illegible]	141	134	173	203	247	363	104	5	95	74	33	45	61	80	647	207	480	76	68	58	92	107	7
Vesper Sparrow	5	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--
Savannah Sparrow	43	5	38	5	--	67	--	[illegible]	17	45	--	--	--	--	--	--	37	136	--	14	--	4	1	--	6	--
Grasshopper Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3*	--	--	--	--	--	--	--	--	--
Le Conte's Sparrow	--	--	--	--	--	11*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fox Sparrow	41	27	18	3	5	8	1	6	7	5	4	3	--	--	--	--	5	6	1	2	--	--	2	--	--	--
Song Sparrow	258	78	384	56	66	[illegible]	57	146	47	215	8	66	111	18	25	22	134	430	157	956	121	27	103	147	251	62
Lincoln's Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1*	--	--	--	--	--	--	--	--
Swamp Sparrow	106	156	469	7	151	138	33	28	97	44	1	11	1	--	4	--	26	140	12	133	14	1	--	3	2	1
White-thr. Sparrow	1000	434	455	93	192	157	136	161	425	262	39	104	60	48	61	53	308	1000	275	1000	206	56	170	131	285	5
White-cr. Sparrow	129	10	18	31	5	4	40	23	15	6	23	46	10	--	--	--	13	8	14	12	--	28	--	42	3	--

	Memp	Reel	DRU	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	[illegible]	[illegible]	[illegible]	[illegible]	Pick	Chat	Hiwa	Norr	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Dark-eyed Junco	541	798	249	314	276	267	[illegible]	448	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	[illegible]	[illegible]	[illegible]	438	64	49	119	15	76	260	253	97
Red-winged Blackbird	12M	4000	83	11M	68	1800	17	1500	2400	212	--	1300	4	351	1	--	135	1500	--	2000	10	101	10	--	11	1
Eastern Meadowlark	222	39	47	107	88	247	46	198	109	206	68	288	156	41	37	24	111	549	101	165	92	87	6	29	45	--
Rusty Blackbird	572	140	18	--	--	6	--	15	20	104	16	--	--	--	15	--	35	--	--	1000	2	1	--	--	--	--
Common Grackle	7000	4900	29	41M	101	198	14	5000	200	194	5000	16M	17	1300	36	--	1800	3	11	3000	--	M*	17	1200	2	--
Brown-headed Cowbird	1900	237	89	607	57	15	62	304	1	10	[illegible]	[illegible]	93	--	--	--	182	29	--	1200	--	[illegible]	--	--	1	--
Purple Finch	64	24	28	100	99	24	51	267	70	120	156	114	67	18	31	1	68	65	33	58	29	33	82	5	24	3
House Finch	1*	--	--	--	--	--	--	--	--	--	[illegible]	12	6	--	--	--	6	22	4	71	1	4	41	80	35	--
Pine Siskin	--	--	--	--	--	--	--	2	--	--	11	2	--	--	--	--	3	2	--	--	--	3	--	--	--	--
American Goldfinch	189	57	169	87	198	327	138	479	304	338	74	183	138	52	44	33	197	499	130	413	139	19	63	82	158	46
House Sparrow	288	947	123	89	37	98	89	51	67	193	35	51	97	98	4	31	70	93	26	163	31	72	144	160	89	52
Total Species	81	96	84	67	[illegible]	8	77	75	71	75	56	81	73	54	47	43	97	92	72	84	54	68	61	64	70	34

Grand Total = 138　　M = 1000　　*See Information on Counts

	Memp	Reel	DRU	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	1981 Leba	High	Cook	Pick	Chat	Hiwa	Norr	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Dark-eyed Junco	541	798	249	314	276	267	50	448	432	175	39	86	108	143	23	145	228	438	64	49	119	15	76	260	253	97
Red-winged Blackbird	12M	4000	83	11M	68	1800	17	1500	2400	212	--	1300	4	351	1	--	135	1500	--	2000	10	101	10	--	11	1
Eastern Meadowlark	222	39	47	107	88	247	46	198	109	206	68	288	156	41	37	24	111	549	101	165	92	87	6	29	45	--
Rusty Blackbird	572	140	18	--	--	6	--	15	20	104	16	--	--	--	15	--	35	--	--	1000	2	1	--	--	--	--
Common Grackle	7000	4900	29	41M	101	198	14	5000	200	194	5000	16M	17	1300	36	--	1800	3	11	3000	--	M*	17	1200	2	--
Brown-headed Cowbird	1900	237	89	607	57	15	62	304	1	10	2	150	93	--	--	--	182	29	--	1200	--	M*	--	--	1	--
Purple Finch	64	24	28	100	99	24	51	267	70	120	156	114	67	18	31	1	68	65	33	58	29	33	82	5	24	3
House Finch	1*	--	--	--	--	--	--	--	--	--	320*	12	6	--	--	--	6	22	4	71	1	4	41	80	35	--
Pine Siskin	--	--	--	--	--	--	--	2	--	--	11	2	--	--	--	--	3	2	--	--	--	3	--	--	--	--
American Goldfinch	189	57	169	87	198	327	138	479	304	338	74	183	138	52	44	33	197	499	130	413	139	19	63	82	158	46
House Sparrow	288	947	123	89	337	98	89	51	67	193	235	51	97	98	4	31	70	93	26	163	31	72	144	160	89	52
Total Species	81	96	84	67	63	85	77	75	71	75	56	81	73	54	47	43	97	92	72	84	54	68	61	64	70	34

Grand Total = 138   M = 1000   *See Information on Counts

MINUTES OF THE 1982 FALL MEETING AND SYMPOSIUM

The 1982 Fall Meeting and Symposium, consisting of a Board of Directors' meeting, symposium, and field trips, was held at the Holiday Inn, Manchester, 12-14 November 1982.

BOARD OF DIRECTORS' MEETING

The Fall Meeting of the Board of Directors was called to order on 13 November by President Michael Bierly, with Secretary Pat Stallings recording the minutes.

The minutes of the 7 May 1982 meeting were approved as read.

Treasurer George Payne, Jr., gave a report covering the period 1 May 1982 through 12 November 1982. Assets were $28,394.11, anticipated Liabilities $5,950.00, Capital Reserve $22,444.11. Present membership was 887.

There were no other officer's or director's reports.

Conservation Committee Chairperson Bruce Wilkey described a reorganized Conservation Committee, with members assigned various responsibilities such as monitoring raptor populations, threatened and endangered species, non-game species, stream management and other issues. Wilkey also proposed a "Blue List" Committee to review status on species on the state endangered and threatened species list for possible additions and/or deletions. Several impending pieces of legislation and land use decisions were proposed for action by the membership.

There were no reports from other standing committees.

President Bierly announced the following members of the Certification Committee: East Tennessee — Jim Tanner, 1 year; Rick Knight, alternate; Middle Tennessee — Pat Stallings, 3 years; Katherine Goodpasture, alternate; West Tennessee — Martha Waldron, 2 years; David Pitts, alternate; Chairperson — Editor of *The Migrant,* Charles Nicholson. Future appointees will all serve three-year terms. This committee is charged with the task of assembling an official Tennessee state bird list.

Charles Nicholson, Editor of *The Migrant,* reported that the March 1982 issue is due from the printer. Two subsequent issues are ready except for 2 long-delinquent Season reports. Rick Knight has been appointed State Count Compiler, beginning with the 1982 Christmas Counts.

President Bierly reported that *The Tennessee Warbler* was delivered on time.

Martha Waldron made a motion that a committee be formed to study the feasibility of a state bird book, with a format showing the state-wide seasonal occurrence of each species. Audrey Hoff seconded. Discussion focused on the current lack of early arrival and late departure dates, particularly in rural areas, and the importance of breeding evidence in different areas of the state. The motion carried.

Announcements were made that the 1983 spring meeting will be 6-8 May at Reelfoot Lake, hosted by the Memphis Chapter, that the 1983 Foray will be in Polk

County on Memorial Day weekend, and that the fall 1983 meeting will be in the Lawrenceburg area, hosted by the Buffalo River Chapter.

SYMPOSIUM

The afternoon paper session, chaired by T. David Pitts, was held on 13 November. The following papers were presented:

MICHAEL L. BIERLY — Results of the 1982 White County Foray.

BEN B. COFFEY, JR. — Nesting of Black-necked Stilts at Memphis.

BURLINE PULLIN — Historical review and status of Tennessee Valley heronries.

CHRIS O'BARA — Decline in waterfowl usage of Woods Reservoir.

CHARLES P. NICHOLSON — Distribution of nesting Tree Swallows in Tennessee.

MARTHA WALDRON — Tennessee Birds — a proposal for a species occurrence booklet.

JEROME JACKSON — Red-cockaded Woodpecker status report.

The evening program, "Southern Killdeer and how they cope," was presented by Bette J. Schardien.

Pat Stallings, *Secretary*

ANNOUNCEMENT

Stephen J. Stedman has recently been appointed to the position of Season Compiler of the Central Plateau and Basin Region. This region includes all of Middle Tennessee from the Tennessee River eastward to the Cumberland Plateau escarpment. Six Tennessee Ornithological Society chapters are based in this region, and much of their fieldwork goes unreported. Please help Steve compile a comprehensive regional report by sending information to him at Route 6, Pinewood Road, Franklin, TN 37064.

ROUND TABLE NOTES

TENNESSEE RECOVERIES OF RAPTORS BANDED AT DULUTH, MINNESOTA — One of the major concentration points of fall migrating raptors in North America is at Duluth, Minnesota. The barrier effect of Lake Superior and a series of ridges along its western shore that provide energy saving updrafts from both northwesterly and southerly winds result in large numbers of migrating hawks and owls each autumn. I have operated a migration research station on the Hawk Ridge Nature Reserve at Duluth since 1972, banding over 27,000 raptors in that time. A number of these birds have been recovered in Tennessee.

We band about 2,000 Sharp-shinned Hawks *(Accipiter striatus)* a year; two have been recovered in Tennessee. An immature female banded on 3 September 1976 was found dead on 2 November 1976 near Franklin, Williamson County. Another immature female banded 6 October 1981 was found injured on 8 February 1982 at Waverly, Humphreys County, and later released. The bulk of our Sharp-shins appear to migrate in a southeasterly direction from Duluth, veering southwest in southern Illinois towards Texas and Mexico (Evans and Rosenfield, in press, Migration and Mortality of Sharp-shinned Hawks Ringed at Duluth, Minnesota, U.S.A. *in* Proc. World Conf. on Birds of Prey, 26-29 April 1982, Thessaloniki, Greece). Females tend to spend the winter farther south than males, with about half going to southern Mexico and Central America. The winter range of males is centered in the southern United States.

We band about 100 Red-tailed Hawks *(Buteo jamaicensis)* a year, and 3 have been recovered in Tennessee to date. An immature, sex unknown, banded 4 November 1975 was found dead the following fall on 1 November 1976 near Battle Creek, Marion County. Another immature banded 15 October 1975 was caught in a trap 16 km NW of Centerville, Hickman County on 3 December 1975. An immature banded 23 October 1981 was found dead on 2 February 1982 at Hornbeak, Obion County. Red-tails banded in Duluth migrate southeastward, wintering in the southeastern and southcentral United States.

Two of the 650 Northern Goshawks *(Accipiter gentilis)* banded in 1973 were recovered in Tennessee. An adult female banded 10 October was shot 26 November 1973 near Fairview, Williamson County. Apparently released, it was found dead in December in Davidson County. Another adult female banded 16 October was shot near Waverly, Humphreys County on 15 December 1973. From 1972 to 1974 we banded about 1,450 goshawks as they were forced south by a cyclic decline in their primary prey, Snowshoe Hares *(Lepus americanus)* and Ruffed Grouse *(Bonasa umbellus)*. Goshawks normally remain on or near their breeding grounds in the boreal forest throughout the winter. In 1981, these prey populations again began declining, and in 1982 we again experienced high goshawk numbers, with about 1,430 banded. Some of these may well turn up in Tennessee.

I would like to thank Bob and Adam Rosenfield, Lee Carson, David Gilbertson, Jim Goin, Gary Kristenses, Dennis Meyer, and Don Scheer for their assistance and, especially, the many contributors to the Friends of Hawk Ridge and our research.

David L. Evans, 2928 Greysolon Rd., Duluth, MN 55812. Accepted 15 February 1983.

GREAT BLUE HERONS NEST ON TRANSMISSION LINE TOWER IN HENRY COUNTY, TENNESSEE — On 5 August 1982 an active Great Blue Heron *(Ardea herodias)* nest was discovered by Rich Melis, TVA pilot, during routine aerial maintenance inspection of the 161-kV transmission line stretching from Paris, Tennessee, to Mayfield, Kentucky. The nest contained one young Great Blue Heron attended by one adult and was located on the upper west crossbeam of structure number 54 (Figure 1). The tower is located 1 mile southeast of Jones Mill, Henry County, Tennessee.

Published reports of heron species nesting on manmade structures include Great Egrets *(Egretta alba)* using overwater platforms built by Edward McIlhenny *(Bird City,* Christopher Publishing House, 203 pp., 1934) at Avery Island in Louisiana, and Great Blue Herons nesting on duck blinds in Texas (Palmer, R. S., ed., 1962, *Handbook of North American Birds,* Vol. 1, Yale University Press). In addition, Henny *(Wildlife Society Bulletin* 6(1):35-37, 1978) observed Great Blue Herons using channel markers in Oregon following destruction of their nest trees. Meier *(Technical Bulletin No. 126,* Department of Natural Resources, Madison, Wisconsin, 13 pp., 1981) erected pole platforms that were successfully used by nesting Great Blue Herons among dying trees in a Wisconsin heronry.

Characteristics of preferred nesting substrate do vary greatly over the Great Blue Heron's vast range (Hancock, J. and H. Elliot, 1978, *The Herons of the World,* Harper and Row, 304 pp.). In this incident, suitable nest trees near the tower were not used, and mature bottomland hardwoods bordered the transmission line to the west along Walnut Fork Creek. However, the selected artificial nest structure did provide a better lookout over surrounding agricultural fields and offered more isolation from potential mammalian predators.

Burline P. Pullin, Wildlife Resources Development Program, Tennessee Valley Authority, Norris, Tennessee 37828. Accepted 18 May 1983.

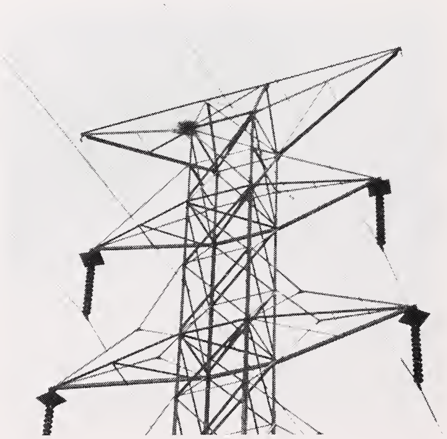
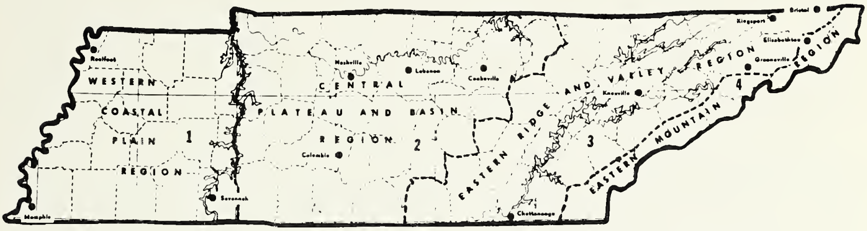


FIGURE 1. Great Blue Heron nest on transmission line tower, Henry County, Tennessee. Photograph by Wesley James and Steve Cottrell.

THE SEASON



FALL MIGRATION: 1 AUGUST - 30 NOVEMBER 1982

According to the comments of the regional compilers, this was not an exceptional fall migration, but there were enough significant occurrences to make it interesting for birders across the state. August began with heavy local flooding in East Tennessee, and the rest of the period was wetter than normal. Temperatures were near normal or slightly above normal. There was a good movement of passerines in late August, and waves of birds came through on 3-5 September, 19-22 September, and with a strong cold front on 16-17 October.

The shorebird migration was outstanding at Memphis, where large numbers of several species were found on sewage lagoons near Ensley. Several new early and late dates for shorebirds were set in the Central Plateau and Basin region, and the shorebird movement in the Eastern Ridge and Valley region was also good. Northern Goshawks were reported from Memphis (for the second West Tennessee record) and in the Eastern Mountain region. If these reports are part of a major southern invasion, more goshawks should be reported this winter. Although a few Evening Grosbeaks were reported in mid-October, there was no evidence of an invasion of this species, Pine Siskins, or Red-breasted Nuthatches. — Charles P. Nicholson

WESTERN COASTAL PLAIN REGION — The highlight of this season for Memphis birders was the large number and variety of shorebirds at the wastewater settling ponds at Ensley.

Loon-Hawk: Common Loon: 3 Nov (3) HEP (CHB, HBD). American White Pelican: 10 Oct (120) Crittenden Co., Ark. north of Horseshoe Lake (BBC, LCC). Least Bittern: 29 Aug (1) ESL (BBC); 10 Sep (1) ESL (LCC). Snowy Egret: 7 Aug thru 26 Sep (1-3) ESL (BBC, LCC, DAD, MGW, JRW). White Ibis: 29 Aug (11) Island south of Hales Point, Lauderdale Co. (MP, RG); 29 Aug (9), 1 Sep (2), 3 Sep (1) ESL (BBC, LCC); 4 Sep (4) ESL (DAD, MGW, JRW). Blue-winged Teal: 22 Aug (160) ESL (JRW). Osprey: 30 Sep (1) SHF (JLS); 16 Oct (1) REL, LKC (JLS). Mississippi Kite: 2 Aug (1), 1 Sep (17) ESL (CHB, SCF, SNK, SSL). Northern Harrier: 4 Sep (1) ESL (DAD, MGW, JRW). Sharp-shinned Hawk: 26 Sep (1) PRI (JRW); 31 Oct (L) PEF (CHB, MGW, JRW). Cooper's Hawk: 17 Oct (1 ad, 1 imm) MEM (JLS). NORTHERN GOSHAWK: 30 Oct (1) MEM (JLS), banded and released 17 Nov at Penal Farm. This is the second sighting for West Tennessee. The first was at Hatchie National Wildlife Refuge, 2 April 1974 by Gerald Ledbetter. Broad-winged Hawk: 7 Aug (6) OVP (JLS); 18 Sep (17) ESL (DAD, SNK, MGW, JRW); 3 Oct (1) TOF (MTOS). MERLIN: 17 Oct (1) PEF (DAD, MGW, JRW); 31 Oct (1) PEF (CHB, MGW, JRW). PEREGRINE FALCON: 21 Sep (1) ESL (CHM, JRW); 10 Oct (1) PEF (JRW).

Plover-Phalarope: Lesser Golden Plover: 10 Sep (4), 22 Sep (1) ESL (BBC, LCC). Semipalmated Plover: 8 Aug (16), 11 Sep (2), 13 Sep (1), 31 Oct (6) ESL (BBC, LCC, *et al.).* BLACK-NECKED STILT: 1 Aug thru 19 Sep (2) ESL (JRW). Greater Yellowlegs: 19 Sep (19) to 15 Oct (1) ESL (BBC, LCC, JRW). Lesser Yellowlegs: 19 Sep (38) to 15 Oct (41) ESL (BBC, LCC, JRW). Ruddy Turnstone: 18 Sep thru 3 Oct (1-5) ESL (CHB, DAD, DPB, SNK, MGW, JRW). Western Sandpiper: 5 Sep (1) to 15 Oct (4) with max on 18 Sep (7) ESL (JRW *et al.).* Least Sandpiper: 13 Sep (570) thru 31 Oct (255) ESL (BBC, LCC, *et al.).* White-rumped Sandpiper: 2 Sep (2) ESL (LCC). Baird's Sandpiper: 30 Sep (1), 3 Oct (1), 10 Oct (4) ESL (CHB, BBC, LCC, DAD, DPB, SNK, JLL, MGS, JRW, WLW). Pectoral Sandpiper: 29 Aug (475), 13 Sep (430), 31 Oct (35), 7 Nov (11) ESL (BBC, LCC, JRW). DUNLIN: 20 Nov (1) ESL (CHB, MGW, JRW). Stilt Sandpiper: 7 Aug (4) to 10 Oct (6) with max on 18 Sep (23) ESL (JRW *et al.).* Buff-breasted Sandpiper: 6 Sep to 12 Oct (1-6) ESL (JRW *et al.).* Dowitcher sp.: 18 Sep (1) to 12 Oct (1) ESL (JRW); 16-17 Oct (1) PEF (DAD, MGW, JRW). Wilson's Phalarope: 31 Aug (1), 1 Sep (1), 5 Sep (1), 18 Sep (1), 3 Oct (1) ESL (JRW *et al.).*

Flycatcher-Sparrow: Scissor-tailed Flycatcher: 15 Nov (1) LKC (CKGS), first Lake County record. Marsh Wren: 26 Sep (1) ESL (BBC, LCC, WLW); 10 Oct (1) ESL (DAD, MGW, JRW). Gray Catbird: 26 Sep (18) PRI (MTOS). Cape May Warbler: 26 Sep (2) PRI (RTC). Ovenbird: 2 Oct thru 10 Oct (1) MEM (BBC, LCC). Yellow-breasted Chat: 13 Oct (1) MEM (WRP). Lincoln's Sparrow: 14 Oct (1), 17 Oct (2) PEF, 20-24 Oct (1) PRI, 21 Nov (1) PEF (DAD, MGW, JRW). American Goldfinch: 24 Oct (ad feeding 2 y) PEF (HBD, WRP).

Locations: ESL — Ensley Sewage Lagoons, Shelby Co.; HEP — Herb Parsons State Recreation Area, Fayette Co.; LKC — Lake Co.; MEM — Memphis; OVP — Overton Park, Memphis; PEF — Shelby Co. Penal Farm; PRI — President's Island, Shelby Co.; SHF — Shelby Forest State Park; TOF — T. O. Fuller State Park.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis 38117.

CENTRAL PLATEAU AND BASIN REGION — Autumn in the region this year was distinguished by another good shorebird migration, especially at the Gallatin Steam Plant where several new early and late dates for the Nashville area were established, a passerine movement which was no better than average, and a rather poor raptor migration. Other segments of middle Tennessee's avian population are less amenable to general characterization, but from the records which were submitted it appears that ducks and other water-oriented species were fairly close to seasonal norms (except at Woods Reservoir, where long-term declines in waterbird populations have been documented). However, no data at all were received regarding some groups of birds. For instance, for lack of records submitted it is not possible to comment on the status of owls in the region. We can presume they are still in good shape, but it would have been more desirable to record and then submit data on these species, which are vocal in the fall, especially during August and September. Perhaps the poor quality of the raptor migration is attributable more to lack of coverage (or commentary about that coverage) than to lower than usual numbers of birds. Certainly the cold fronts which passed through the region September 3, 16, 21, 24, and October 6 provided desirable conditions for raptor migration. Without expanded coverage of raptors and some less popular to watch species (i.e., rails, gallinaceous species, nightjars, mimids, and blackbirds, to name a few) it will be difficult to establish just what is a normal migration in terms of sightings and numbers and even more difficult to establish whether a given season has been a poor, normal, or excellent one for those species. One negative result of this state of innocence is that some species may decline past the point where recovery is likely before this change is noticed; the fate of Bachman's Sparrow in the region is a case in point. Consequently, field observers are encouraged to diversify the work they do in middle Tennessee and to report the results of that work promptly for publication in this journal.

Previous compilers of the fall migration report for this region (including Henry Parmer, Heather and John Riggins, Morris Williams, Pat Stallings, and Michael Bierly) have laid a fine foundation for the present compiler to work on. Their efforts deserve our applause; because of the reports which they have filed, we are now better able to expand our knowledge of middle Tennessee's rich avifauna. I trust that all regional and state birders will continue the fine cooperation which those compilers enjoyed so that we can fulfill the responsibilities which membership in the TOS brings with it.

Loon-Falcon: Common Loon: 3 Nov to end of period — hereafter EOP (1) GSP (DTC, JPC); 12 Nov (50) Woods Res., FKC (KHD, LHD); 28 Nov (1 — flying south) Leiper's Fork, WMC (SJS); 29 Nov (2) Monsanto Ponds, MUC (WJ). Pied-billed Grebe: 16 Sep to EOP (1) GSP (DTC, JPC); 12 Nov (14) Woods Res., FKC (KHD, LHD). Horned Grebe: 13 Nov (10) Woods Res., FKC (Anne Lochridge). Double-crested Cormorant: 18 Aug (1) GSP (DTC, JPC); 2 Oct (1) GSP (DTC, JPC); 21 Oct (3) Monsanto Ponds, MUC (WJ). Great Blue Heron: all period (up to 8) GSP (DTC, JPC); 28 Aug (15+) DRU (SJS, BHS, ARH). Great Egret: 4 Sep (10) Madison, Davidson County (LFK); 22-*24* Nov (1) GSP (DTC, JPC), new Nashville area late date. Green-backed Heron: 11 Oct (1) GSP (DTC, JPC). Yellow-crowned Night-Heron: 28 Aug (7) CCNWR (MGW, MCTOS); 8 Oct (1) GSP (DTC, JPC). Brant: 28 Aug (1) CCNWR (MGW, MCTOS); 1 Oct and 5 Nov (1) CCNWR (DWB), same bird present continuously since 1981. Green-winged Teal: 15 Sep (2) to 24 Nov (7) GSP (DTC, JPC). Amer. Black Duck: 16 Sep irregularly to EOP (2) GSP (DTC, JPC). Blue-winged Teal: 28 Aug (20) DRU (SJS, BHS, ARH); 12 Sep (2) to 30 Oct (16) GSP (DTC, JPC). Northern Shoveler: 3 Oct (1) GSP (DTC, JPC). Gadwall: 16 Oct to EOP (4) GSP (DTC, JPC). American Wigeon: 2 Oct (2) GSP (DTC, JPC). Canvasback: 12 Nov (3) Woods Res., FKC (KHD, LHD). Redhead: 26 Oct (1) CCNWR (DWB). Ring-necked Duck: 27 Oct (48) GSP (DTC, JPC). Hooded Merganser: 12 Nov (70) Woods Res., FKC (KHD, LHD). Black Vulture: all period (large roost — up to 400 with some Turkey Vultures) GSP (DTC, JPC). Osprey: 7 Aug (1), 10-14 Aug (1), 12-16 Sep (1) GSP (DTC, JPC); 19 Sep (2 — migrating SE) Leiper's Fork, WMC (SJS). Bald Eagle: 30 Oct (1 ad) CCNWR (DWB). Northern Harrier: 15 Nov (1) GSP (DTC, JPC), only report received. Sharp-shinned Hawk: 26 Aug (1) GSP (DTC, JPC); 28 Aug (1) CCNWR (MGW, MCTOS); 19 Sep (1), 21 Sep (1), and 2 Oct (3) Leiper's Fork, WMC (SJS, BHS). Cooper's Hawk: 19 Sep (1) and 2 Oct (1) Leiper's Fork, WMC (SJS, BHS); 31 Oct (1) Cheatham Dam, Dickson County side (SJS, BHS, ARH); 24 Nov (1) GSP (DTC, JPC). Red-shouldered Hawk: 25 Sep (3) Leiper's Fork, WMC (SJS). Broad-winged Hawk: 19 Sep (16 — migrating SW) Leiper's Fork, WMC (SJS). Golden Eagle: 5 Nov (1 imm) CCNWR (DWB). Peregrine Falcon: 18 Sep (1) GSP (DTC, JPC); 25 Sep (1) Leiper's Fork, WMC (SJS, BHS).

Coot-Tern: American Coot: 12 Nov (1) Woods Res., FKC (KHD, LHD), drastic decline from numbers of preceding decade still occurring. Sandhill Crane:

8 Nov (37), 17 Nov (60+), and 24 Nov (43) Byrdstown, PIC (RCH, DH). Lesser Golden Plover: 19 Sep (1) GSP (DTC, JPC). SEMIPALMATED PLOVER: 28 Aug (6) CCNWR (MGW, MCTOS); 15 Sep (1) GSP (DTC, JPC); 1 Nov (2) GSP (DTC, JPC), new Nashville area late date. Greater Yellowlegs: 28 Aug (2) CCNWR (MGW, MCTOS); 12 Sep (1) to 11 Oct (1) GSP (DTC, JPC). Lesser Yellowlegs: 4 Aug (2) to 25 Sep (3) GSP (DTC, JPC). Spotted Sandpiper: 4 Aug (1) to 1 Nov (1) GSP (DTC, JPC). Sanderling: 4 Aug (1) to 30 Oct (1) with high count 2 Oct (7) GSP (DTC, JPC). Semipalmated Sandpiper: 4 Aug (4) to 1 Nov (1) GSP (DTC, JPC). Least Sandpiper: 14 Aug (2) Green Pond, SUC (DTC, JPC); 28 Nov (2) GSP (DTC, JPC). BAIRD'S SANDPIPER: 21 Aug (2) to 30 Oct (2) GSP (DTC, JPC), the latter date represents a new Nashville area late date. PECTORAL SANDPIPER: 4 Aug (2) to 22 Nov (2) GSP (DTC, JPC), the latter date represents a new Nashville area late date; 28 Aug (16) CCNWR (MGW, MCTOS). DUNLIN: 15 Sep (3) GSP (DTC, JPC), new Nashville area early date: 22 Nov (26) GSP (DTC, JPC); 23 Nov (2) GSP (DTC, JPC). Stilt Sandpiper: 21 Aug (1) to 19 Sep (1) GSP (DTC, JPC). Buff-breasted Sandpiper: 5 Sep (1) and 19 Sep (3) GSP (DTC, JPC). Common Snipe: 28 Aug (1) CCNWR (MGW, MCTOS); 3 Oct (1) Green Pond, SUC (DTC, JPC). Ring-billed Gull: 12 Nov (50) Woods Res., (KHD, LHD). Caspian Tern: 7 Aug (1) to 18 Sep (7) GSP (DTC, JPC); 4 Sep (10) GSP (LFK). Forster's Tern: 7 Aug (3) GSP (DTC, JPC). Black Tern: 23 Aug (1) to 18 Sep (1) with high 15 Sep (3) GSP (DTC, JPC).

Nighthawk-Vireo: Common Nighthawk: 22 Oct (1) Green Hills, Nashville (JCA). Ruby-throated Hummingbird: 9 Oct (1) Leiper's Fork, WMC (SJS). Red-headed Woodpecker: 28 Aug (1) CCNWR (MGW, MCTOS); 12 Nov (7) Woods Res., FKC (KHD, LHD). Yellow-bellied Sapsucker: 26 Sep (1) LHC (JCA). Purple Martin: 28 Aug (28) CCNWR (MGW, MCTOS). Tree Swallow: 29 Sep (1) to 8 Oct (1) GSP (DTC, JPC). Brown Creeper: 12 Aug (1 — bird captured in a home) Nashville (Virginia Price); 17 Oct (1) LCH (JCA). Winter Wren: 24 Oct (1) Leiper's Fork, WMC (SJS). Golden-crowned Kinglet: 14 Oct (3) Leiper's Fork, WMC (SJS). Ruby-crowned Kinglet: 28 Sep (1) LCH (JCA). Swainson's Thrush: 11 Sep (1) Leiper's Fork, WMC (SJS). Hermit Thrush: 13 Nov (1) Tims Ford State Park, FKC (Anne and Bedford Lochridge). Water Pipit: 8 Oct (10) to 3 Nov (5) GSP (DTC, JPC). Cedar Waxwing: 29 Aug (15) Leiper's Fork, WMC (SJS, ARH). Solitary Vireo: 23 Oct (1) LCH (JCA); 6 Nov (1) Leiper's Fork, WMC (SJS, BHS).

Warbler-Grosbeak: Golden-winged Warbler: 3 Oct (1) Leiper's Fork, WMC (SJS). Tennessee Warbler: 29 Aug (1) LCH (JCA). Nashville Warbler: 17 Sep (1) LCH (JCA). Chestnut-sided Warbler: 27 Aug (1) LCH (JCA). Magnolia Warbler: 28 Aug (1) LCH (JCA). Yellow-rumped (Myrtle) Warbler: 3 Oct (1) Leiper's Fork, WMC (SJS). Black-throated Green Warbler: 5 Sep (1) LCH (JCA). Blackburnian Warbler: 22 Aug (1) LCH (JCA). Palm Warbler: 28 Nov (1) Leiper's Fork, WMC (SJS, BHS). Bay-breasted Warbler: 22 Aug (1) LCH (JCA). Cerulean Warbler: 11 Aug (1 singing) Leiper's Fork, WMC (SJS). American Redstart: 5 Sep (1) Leiper's Fork, WMC (SJS, BHS). Ovenbird: 24 Oct (1) LCH (JCA). Wilson's Warbler: 5 Sep (1) Leiper's Fork, WMC (SJS, BHS). Canada Warbler: 22 Aug (1) LCH (JCA); 22 Aug (1) Leiper's Fork, WMC (SJS). Rose-breasted Grosbeak: 6 Sep (2) Leiper's Fork, WMC (SJS); 10 Oct (90+ in 2 flocks) HIC (DA). White-throated Sparrow: 15 Oct (1) LCH (JCA); 15 Oct (1) Williamsport, MUC (KGA); 20 Oct (10) Byrdstown, PIC (RCH). White-crowned Sparrow: 23 Oct (1) Williamsport, MUC (KGA). Dark-eyed Junco: 12 Oct (1) Dover, Stewart

County (DWB); 18 Oct (15) Byrdstown, PIC (RCH). Northern (Baltimore) Oriole: 5 Sep (1) Leiper's Fork, WMC (SJS). Purple Finch: 4 Nov (1) Leiper's Fork, WMC (SJS). House Finch: 26 Oct (1) Barnes Hollow, Putnam County (Richard W. Simmers), first local record; 21 Nov (1) Byrdstown, PIC (RCH). Evening Grosbeak: 10 Oct (4) HIC (DA).

Locations: CCNWR — Cross Creeks National Wildlife Refuge, Stewart County; DRU — Duck River Unit, Tennessee National Wildlife Refuge, Humphreys County; FKC — Franklin County; GSP — Gallatin Steam Plant, Sumner County; HIC — Hickman County; LCH — Love Circle Hill, Nashville; MUC — Maury County; PIC — Pickett County; SUC — Sumner County; WMC — Williamson County.

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EASTERN RIDGE AND VALLEY REGION — From the reports received it appears the main waterfowl movement was recorded on Chickamauga Lake near Chattanooga about 16 November. During the period 2-6 November an impressive number of 400-700 Ring-necked Ducks were feeding in the Blythe Ferry section of the Hiwassee River Area. A search of the available records revealed this as the largest number of Ringnecks ever documented in the region for the fall period. At the Kingston Steam Plant, Ringnecks and Lesser Scaup were noted on a regular basis during the summer season.

Recent autumn counts of the eastern population of the Greater Sandhill Crane place their number close to 14,000 birds. Most of these birds pass over our region as they migrate to their major wintering grounds in Florida. With this in mind, one must be impressed with the number of observations reported by the numerous birders.

Several observers continued with sustained efforts monitoring the shorebird migration at the Kingston Steam Plant and suitable areas along Douglas Lake. This season exciting numbers of Dunlin and Sanderlings were noted along with the usual species sighted in recent years.

Blue Jays are known to migrate, but seldom does anyone ever bother to make a note regarding their observations. An excellent movement was noted in the Chattanooga region on the weekend of 9-10 October. The last comparable movement of this magnitude was in this same area along Missionary Ridge from 29 September to 2 October 1974.

Both Rick Knight and Chuck Nicholson spent many hours this season banding and recording their sighting at Austin Springs and Norris respectively. Their records have been incorporated in this summary report.

Loon-Merganser: Common Loon: first 17 Oct (1) BOL (RLK); 16 Nov (150) CHL (KHD, LHD). Horned Grebe: 6 Nov (1) Warriors Path Lake (HHD); 16 Nov (85) CHL (KHD, LHD); 20 Nov (2) only report NRL (JCH). Pied-billed Grebe: 10 Aug (3) SAB (KHD, LHD); 24 Aug (1) KSP (KHD, LHD); 29 Aug (1) DOL (JAK); first sighting 21 Sep AUS (GDE) with lower than usual numbers there; 4-5 Nov (35) SAB (KHD, LHD). Double-crested Cormorant: 3 Sep - 20 Nov (1-2) FLL (MLD, JTT, KTOS); 23 Sep - 15 Oct (1-4) AUS (LHTOS); 29 Nov (1) CHL (KHD, LHD). Great Blue Heron: 23 Oct - 7 Nov (peak count 273) DOL (JAK). Green Heron: max 17 July (30) DOL (JAK); last 21 Oct (1) AUS (RLK). Little

Blue Heron: 1 Aug - 6 Sep (1-9) DOL (JAK); 1-29 Aug (1-4) SAB (KHD, LHD); 2-31 Aug (3-7) HRA (KHD, LHD); 26 Sep (1 ad) KNX (BMM, JMM). Cattle Egret: 8 Oct (1) Red Bank (Gary S. Hartman). Great Egret: 1 Aug - 19 Sep (7-12) DOL (JAK); 1 Aug - 4 Nov (1-4) SAB (KHD, LHD); 9-17 Aug and 13 Sep - 14 Oct (1) AUS (LHTOS); 24 Aug - 14 Sep (1-3) HRA (KHD, LHD). Snowy Egret: 9 Aug (1) KSP (KHD, LHD, PCH). Black-crowned Night-Heron: regular to 27 Oct at AUS (MD). Yellow-crowned Night-Heron: regular to 15 Oct at AUS (MD, SG). American Bittern: 28 Sep - 21 Oct (1) AUS (LHTOS). Tundra Swan: 16-22 Nov (1 imm) SAB (LHD *et al.).* Snow Goose: 18 Oct (6 blue phase) HRA (KHD, LHD). Amer. Black Duck: 8 Aug (2) DOL (JAK); 4 Oct (2) KSP (KHD, LHD). Gadwall: first 27 Sep (2) KSP (KHD, LHD); 10 Oct (1) Alcoa (ARH); 20 Nov (86) DOL (JAK). Northern Pintail: first 27 Sep (1) KSP (KHD, LHD); 16 Oct (3) AUS (RLK); max 29 Nov (65) HRA (KHD, LHD). Green-winged Teal: first 14 Sep (3) KSP (KHD, LHD); 7-26 Nov (50-200) DOL (JAK); max 2 Nov (50) HRA (KHD). Blue-winged Teal: 2 Aug - 4 Oct (2-77) KSP (KHD, LHD); 4 Sep - 14 Nov (3-200 regular) SAB (KHD, LHD). EUROPEAN WIGEON: 20-30 Nov (1 male) SAB (LHD *et al.).* American Wigeon: 27 Sep (2) KSP (KHD, LHD); 16 Oct - 26 Nov (10-22) DOL (JAK); max 29 Nov (150) HRA (KHD, LHD). N. Shoveler: 12 Sep - 11 Oct (1-2) KSP (LJF, KHD, LHD); 20 Sep (4) AUS (RLK); 31 Oct (11) DOL (JAK); 11 Oct - 22 Nov (1-24) SAB (KHD, LHD). Redhead: 20-21 Nov (2) Greene County (JAK); 14 Nov (10) HRA (KHD, LHD, RLK); 16 Nov (9) CHL (KHD, LHD). Ring-necked Duck: 2 Aug - 4 Oct (1-3 regular) KSP (KHD, LHD); 2-6 Nov (400-700) HRA (KHD, LHD); 7-26 Nov (60-120) DOL (JAK); 8-29 Nov (105-400) CHL (KHD, LHD). Canvasback: 26 Nov (3) DOL (JAK). Lesser Scaup: 2 Aug - 14 Sep (1 male, 2 females regular) KSP (KHD, LHD). Common Goldeneye: 16 Nov (5) CHL (KHD, LHD). Bufflehead: 13 Nov (2) KSP (MWA); 16 Nov (14) CHL (KHD, LHD). White-winged Scoter: 2 Nov (1) SAB (KHD). Ruddy Duck: 25 Oct - 24 Nov (2-5) BOL (RLK *et al.);* 20 Nov (2) SAB (LHD). Hooded Merganser: 20 Nov (8) DOL (JAK); 29 Nov (105) HRA (KHD, LHD). Red-breasted Merganser: 16 Nov (130) CHL (KHD, LHD).

Vulture-Coot: Turkey Vulture: 23 Oct - 15 Nov (5 flocks totaling 207 birds) KNX area (LJF, PDH, RDH). Sharp-shinned Hawk: 9 sightings during period EJC — about normal there (LHTOS); Cooper's Hawk: 12 sightings during period EJC — above average number there (LHTOS). Broad-winged Hawk: 2 Oct (1) EJC (SG, MD). Bald Eagle: 11 Aug (1 imm) NRL (JCH); 18 Sep (1) Tellico L. (WKJ); 19 Sep (1 ad) FLL, KNC (RDH); 29 Nov (1 ad) CHL (KHD, LHD). Northern Harrier: 12 sightings EJC — way above average numbers there (LHTOS); 4 reports KNX area (KTOS); 30 Aug (1) KSP (BHS). Osprey: 7 Oct (1) AUS (RLK). Peregrine Falcon: 11 Oct (1 imm) KSP (KHD). Ruffed Grouse: 25 Sep (1) Signal Point (KHD, Eugene M. Ryther). Sandhill Crane: approximately 510 reported from KNX area 4-25 Nov (*fide* WKJ), flocks scattered throughout period; 5 Nov (50) Rockwood (Clarence Coffey); 12 Nov - 9 Dec (297 in 6 flocks) SAB (KHD, LHD, Angela Davis, Jean Davis, Betty Robinson, PDR, RBW); 14 Nov (24) Raccoon Mtn., Marion Co. (Lenny Kafka, PDR, RBW); 14 Nov (24 in 2 flocks) Candies Creek, Bradley Co. (KHD, LHD, RLK); 15 Nov (18) (RCS), 16 Nov (39 in 3 flocks) CHA (PDR); 15 Nov (flock heard) Blythe Ferry, Meigs Co. (KHD, LHD). Sora: 8 Sep - 30 Oct (1) AUS (LHTOS). Common Gallinule: 2 Nov (1) HRA (KHD). American Coot: 11-21 Aug (1 occasional) SAB (KHD, LHD).

Plover-Tern: Semipalmated Plover: 2 Aug - 8 Oct (1-6) KSP (BHS, MWA, ARH *et al.);* 15 Aug - 18 Sep (2-7) DOL (JAK). Piping Plover: 7-14 Aug (1) KSP (PCH, BHS, MWA, LNA *et al.).* Lesser Golden Plover: 31 Aug - 11 Oct (1-3 occasional) KSP (LHD, JTT, MWA); 18 Sep (2) DOL (JAK). Black-bellied

Plover: 9 Aug - 29 Oct (1-9) KSP (MWA, RCS, LHD); 18 Sep - 23 Oct (2-17) DOL (JAK). Common Snipe: first 29 Sep (1) AUS (RLK). Willet: 9 Aug (5) KSP (KHD, LHD, PCH); 13 Aug (5) SAB (KHD, LHD). Greater Yellowlegs: 7 Aug - 21 Oct (1-21) KSP (KHD, LHD, MWA); 4 Sep - 16 Oct (1-2 sporadic) DOL (JAK). Lesser Yellowlegs: 2 Aug - 4 Oct (1-25) KSP (KHD, LHD); 15 Aug - 6 Sep (1-8 occasional) DOL (JAK). Pectoral Sandpiper: 15 Aug - 7 Nov (2-152) DOL (JAK); 2 Aug - 11 Oct (2-40) KSP (KHD, LHD); 15 Nov (9) HRA (KHD, LHD). White-rumped Sandpiper: 9 Aug (1) KSP (BHS); 11 Aug (4) KSP (BHS). Baird's Sandpiper: 18 and 23 Aug (1) KSP (SJS, BHS); 6-15 Nov (2) HRA (KHD, LHD, RLK *et al.).* Least Sandpiper: 2 Aug - 11 Oct (1-80) KSP (KHD, LHD); 15 Aug - 7 Nov (6-20 scattered reports) DOL (JAK). Dunlin: 8 Oct (4) KSP (MWA); 16 Oct - 27 Nov (4-390) DOL (JAK). Dowitcher sp.: 6-13 Sep (8-10) DOL (JAK); Short-billed Dowitcher: 17 Aug (1) KSP (KHD, LHD); 31 Aug (4) KSP (KHD, LHD). Stilt Sandpiper: 17 Aug (1) KSP (KHD, LHD); 24 Aug (2) HRA (KHD, LHD); 25 Aug (1) SAB (KHD, LHD). Semipalmated Sandpiper: 15 Aug - 18 Sep (6-80) DOL (JAK); 2 Aug - 4 Oct (1-330) KSP (KHD, LHD). Western Sandpiper: 2 Aug - 19 Sep (1-5) KSP (MWA, KHD, LHD); 6-18 Sep (2) DOL (JAK). Buff-breasted Sandpiper: 6 Sep (1) DOL (JAK); 12 Sep (1) KSP (LJF); 14 Sep (1) KSP (BHS). Sanderling: 17 Aug - 11 Oct (1-8) KSP (MWA, KHD, LHD). American Avocet: 9 Aug (1) KSP (KHD, LHD, PCH); 21 Aug (1) KSP (MWA, LJF); 16 Oct - 20 Nov (1) DOL (JAK). Wilson's Phalarope: 26 Aug (1) KSP (MWA, PDH, ARH, HKM). Red-necked Phalarope: 21 Sep (1) feeding around floating milfoil mats in Tennessee R. at KNX (CPN). Herring Gull: first 20 Nov (1) SAB (KHD, LHD). Ring-billed Gull: 5-8 during August on DOL (JAK). Common Tern: 25 Oct (1) BOL (RLK). Caspian Tern: 9-24 Aug (1-5) KSP (MWA, ARH, RDH, BHS). Black Tern: 9 Aug - 19 Sep (1-12) KSP (MLD, MWA, BHS *et al.).*

Owl-Blue Jay: SHORT-EARED OWL: 25 Oct (1) AUS (RLK) — this is only the second record for this section of the state. Common Nighthawk: last 9 Nov (4) KNX (PDH). *Empidonax* flycatchers: all 4 "species" banded at Norris in numbers similar to previous 2 falls (CPN). Traill's Flycatcher: 13 Sep (2 banded) AUS (RLK). Tree Swallow: 25 Oct (1) AUS (RLK); 5 Nov (5) SAB (KHD, LHD). Bank Swallow: 9 Aug (1) KSP (KHD, LHD); 3 Sep (1) AUS (RLK). Barn Swallow: 15 Oct (3) SAB (KHD, LHD). Cliff Swallow: 6 Sep (250+) Limestone, Washington Co. (RLK). Purple Martin: no large roosts or numbers reported from any area. BLUE JAY: The largest movement of this species ever noted in the Chattanooga area was recorded on the weekend of 9-10 Oct. On 9 Oct at the Signal Point Hawk Watch small numbers of up to 25 in a flock were observed passing over. By noon 300 birds were counted and at the end of the day the tally totaled 416 jays. The next morning, the 10th, while traveling from home on Savannah Bay, Chickamauga Lake to Signal Point over 550 jays were counted traveling south in four flocks. During the remainder of the day on the hawk watch over 330 more birds were tallied in small groups of up to 36 individuals in each flock. Again, the heaviest movement was noted in the morning with few found after 3:00 p.m. (KHD).

Nuthatch-Warbler: Red-breasted Nuthatch: only reports received were 27 Sep (1) Collegedale (Gertrude Fleming); 12 Oct and 11 Nov (1) KNX (JCH, Barbara Finney). Marsh Wren: 11 Oct (5) KNX (PDH, HKM); 2 Nov (1) AUS (RLK) — late. Sedge Wren: 11 Oct (5) KNX (PDH, HKM); 15 Oct (1) AUS (MD, SG). Gray Catbird: number banded at Norris 90% higher than previous 2 years (CPN). *Catharus* thrushes: capture rate of Swainson's, Veery and Gray-cheeked at Norris all higher than in 1981, but still lower than in 1980 (CPN). Hermit Thrush: heavy, early flight with 16 banded at Norris in late October with none banded there in 1980 or 1981 (CPN). Water Pipit: 30 Sep - 23 Nov (2-14) AUS (LHTOS); 15 Oct (5) KSP (MWA); 20 Nov (65) KNX (PDH, HKM). Solitary Vireo: 12 and 20 Aug (1) NOR (CPN) — this is several miles from their normal breeding grounds. Philadelphia Vireo: 28 and 29 Aug (1 banded on each day) NOR (CPN) — a total of 8 were banded at this site during the season (CPN). Warblers: Good species diversity, but many species banded in lower than average numbers at Norris. Species showing declines of 50% or more were Tennessee, Blue-winged, Canada and Magnolia. Bay-breasted Warblers were in much increased numbers. Most species came through approximately on schedule. The last reports for several species were a bit later than average, and were following the strong frontal passage of 10-12 Oct. Some notable dates were: Prothonotary Warbler: 11 Oct (1) KNX (PDH, HKM). Tennessee Warbler: 25 Oct (1) AUS (RLK); 10 Nov (1) KNX (BMM, JMM). Orange-crowned Warbler: 29 Oct (1 banded) AUS (RLK). Yellow-rumped Warbler: 2 Oct (1) EJC (SG). Blackburnian Warbler: 11 Oct (1) EJC (MD). Palm Warbler: 8 banded AUS with their last observation 27 Oct (RLK). Northern Waterthrush: very late sighting 23 Nov (1) AUS (RLK). Kentucky Warbler: 9 Oct (1) KNX (MLD).

Bobolink-Longspur: Bobolink: 28-29 Aug (1) SAB (KHD, LHD); 18 Sep - 28 Oct (1-3) AUS (RLK). Rusty Blackbird: 26 and 27 Oct (6-15) AUS (RLK, GDE); 2-6 Nov (5-6) HRA (KHD, LHD). Scarlet Tanager: 21 Oct (1) KNX (BMM, JMM). Summer Tanager: a good fall migration noted EJC with the last report there 3 Oct (MD); 22 banded at NOR, 3 times previous average (CPN). Rose-breasted Grosbeak: 23 Sep - 8 Oct a very heavy flight noted EJC with last individual noted 15 Oct (LHTOS); 10 Oct (92) Campbell Co. (JCH) — a high one day count there. Blue Grosbeak: 6 Oct (1) EJC (MD). Evening Grosbeak: 9 Oct (1) KNX (John Burkhart). Purple Finch: first 24 Oct (3) NOR (CPN); most observers in Knoxville area reported its presence in numbers much lower than average at the end of the period. House Finch: The only report received was from EJC where winter residents began showing up during the last week of Oct. This was after a few summer resident birds were reported (LHTOS). Vesper Sparrow: 16 Oct - 20 Nov (2-6 irregular) AUS (LHTOS); 26 Sep (5) KNC count (KTOS) — early there; 26 Oct (1) HRA (KHD, LHD). White-crowned Sparrow: 22 Sep (1 banded) AUS (RLK). White-throated Sparrow: 30 Sep (1) AUS (RLK); 26 Sep (9) KNC count — early there (KTOS); a very heavy passage in second half of Oct at Norris (CPN). Fox Sparrow: 30 Nov (1) EJC (RLK). Lincoln's Sparrow: 18 Sep - 21 Oct (1-3 seen regularly with a total of 10 banded) AUS (RLK). LAPLAND LONGSPUR: 23-27 Oct (1-3) AUS (RLK) — identifiable photos were secured. This is only the second sighting for the EJC area.

Locations: AUS — Austin Springs; BOL — Boone Lake; CHL — Chickamauga Lake; DOL — Douglas Lake; EJC — Elizabethton-Johnson City; FLL — Fort Loudoun Lake; HRA — Hiwassee River Area; KNX — Knoxville; KSP — Kingston Steam Plant; NOR — Norris; NRL — Norris Lake; SAB — Savannah Bay.

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EASTERN MOUNTAIN REGION — The northern part of the region had a very normal fall migration for most species except shorebirds, which were present in low numbers. Waterfowl were about 10 to 14 days later than usual in their arrival and there were no "northern finch" sightings except the regular Purple Finches. The numbers of migrating hawks reported from the southern end of the region were considerably less than the high counts of last year. Probably the best sighting was that of a Henslow's Sparrow which was carefully identified on the Lee Herndon Chapter's annual fall count day. This sighting was only the second for the area.

The weather for this period was very wet with above average temperature. All four months recorded above average rainfall totals. With the exception of the last week in September and the third week in October, the temperature was above average.

Loon-Hawk: Common Loon: 19 Nov (1) WatL (MD) first fall sighting. Green-backed Heron: 21 Oct (1) SMV (HLF) last fall sighting. Black-crowned Night-Heron: 26 Oct (1) SMV (GDE). Wood Duck: 28 Nov (3) SMV (HLF) last fall sighting. Green-winged Teal: 10 Nov (5) WibL (GDE). Ring-necked Duck: 9 Nov (3) WibL (HLF) first fall sighting (late). Bufflehead: 1 bird spent entire summer on WibL; 9 Nov (5) WibL (GDE, HLF) first winter arrivals. Osprey: in ELI area 6 Sep - 7 Oct (LHTOS). Northern Harrier: 19, 21 Sep (1) Foothills Parkway, GSMNP (ARH); 2 Oct (1) Unicoi (SG, GS). Sharp-shinned Hawk: 2 Oct (12) ELI (LHTOS). Cooper's Hawk: 14 Sep (1) ERW (GS); 6, 11 Oct (1) SMV (GOW); 13 Oct (1) SHL (RL). NORTHERN GOSHAWK: 21-25 Aug (1) ELI (GDE, HLF). Red-shouldered Hawk: 16 Aug (1) WatR (HLF); 26 Sep (1) Foothills Parkway, GSMNP (ARH); 31 Oct (1) SHL (RL). Broad-winged Hawk: 3 Oct (1) ELI (HLF) last fall sighting.

Turkey-Martin: Wild Turkey: 3 or 4 broods present after birds introduced on HM several years ago by TWRA *(fide* GDE). Semipalmated Plover: 30 Sep, 2 Oct (2) RC (GDE, HLF, HL). Sanderling: 20 Sep (2) ELI (GOW). Western Sandpiper: 30 Sep, 2 Oct (1) RC (GDE, HLF, HL). Caspian Tern: 19 Sep (5) SHL (RL). Forster's Tern: 6 Aug (4) WatL (GDE). Common Barn-Owl: 3 new sites near SHL (RL *et al.).* Great Horned Owl: 4 to 6 new sites near SHL (RL *et al.).* Barred Owl: 18 Sep (1) RMSP (GOW); 26 Nov (1) GRE (RN). Common Nighthawk: 16 Sep (530) CHM (BHS). CHIMNEY SWIFT: 1 Sep (760) CHM (BHS). Red-headed Woodpecker: 28 Sep (1) ELI (HLF) only report. Yellow-bellied Sapsucker: 2 Oct (1) HM (GOW, RDL) first fall report. Least Flycatcher: 10 Sep (1) RM (RLK) last fall sighting. Purple Martin: 2 Aug (2) ELI (GDE) last summer sighting, population still below average.

Raven-Vireo: Common Raven: 1 Sep thru end of period, several low elevation sightings in ELI (GDE *et al.);* 20 Nov (1) GRE (RN). Red-breasted Nuthatch: 2 Oct (1) RM (EHS) last fall sighting in area. Brown Creeper: 2 Oct (1) ERW (GS), first fall sighting. House Wren: 31 Oct (1) ELI (HLF) last fall report. Winter Wren: 16 Nov (1) Unicoi (GDE, HLF); 25 Nov (1) GRE (RN). Ruby-crowned Kinglet: 28 Sep thru 5 Oct (plentiful) RM (EHS). Veery: 2 Oct (1) ELI *(fide* Lois Herndon). Hermit Thrush: 2 Oct (1) RM (EHS) early fall sighting. Philadelphia Vireo: 22 Sep (1) WatR (GDE); 30 Sep (1) RC (GDE, HL).

Warbler-Finch: Blue-winged Warbler: 13 Sep (1) ERW (GS) last fall sighting. Tennessee Warbler: 24 Oct (2) ELI (HLF) last report. Cape May Warbler: 26 Oct (1) ELI (GDE) last sighting. Yellow-rumped Warbler: 30 Sep (3) RC (GDE, HL) first fall report. Blackpoll Warbler: 2 Oct (1) RM (EHS). Palm Warbler: 26 Oct (1) SMV (GOW) last fall report. Canada Warbler: 13 Sep (1) RM (EHS) last report. Summer Tanager: 2 Oct (1) SMV (GOW, RDL) last fall sighting. Rose-breasted Grosbeak: 21 Sep thru 6 Oct, a very heavy influx in area, 16 Oct (1) RC (GDE) last seen. Vesper Sparrow: 11 Sep (1) RM, Grassy Ridge Bald (RLK, EHS); 10 Nov (1) SMV (GDE, HLF). Grasshopper Sparrow: 17 Aug (1) SHL (RL). HENSLOW'S SPARROW: 2 Oct (1) near WibL (GOW, RDL, HL), second ELI area record. Fox Sparrow: 16 Nov (1) Unicoi (GDE, HLF); 25 Nov (1) ELI

(GDE). White-throated Sparrow: 1 Oct (1) ELI (HLF) first fall report. White-crowned Sparrow: 2 Oct (3) SmV (GOW, RDL) first fall sighting. Purple Finch: 9 Nov (3) ELI (HLF) first fall sighting, late. House Finch: 30 Oct (2) ELI (GDE).

Locations: CHM — Chilhowee Mtn.; ELI — Elizabethton area; ERW — Erwin; GRE — Greeneville; GSMNP — Great Smoky Mtns. Nat. Park; HM — Holston Mtn.; RC — Roans Creek; RM — Roan Mtn.; RMSP — Roan Mtn. State Park; SMV — Siam Valley near Elizabethton; SHL — South Holston Lake; WatL — Watauga Lake; WatR — Watauga River; WibL — Wilbur Lake.

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LCC—Lula C. Coffey
DTC—Dot T. Crawford
JPC—J. Paul Crawford
DAD—Dollyann Daily
MLD—Marcia L. Davis
MD—Martha Dillenbeck
HBD—Helen B. Dinkelspiel
HHD—Helenhill Dove
KHD—Kenneth H. Dubke
LHD—Lillian H. Dubke
GDE—Glen D. Eller
HLF—Harry L. Farthing
LJF—Linda J. Fowler
SG—Sally Goodin
RG—Randy Gray
PCH—Paul C. Harris
PDH—Paul D. Hartigan
JDH—J. David Hassler
RCH—Robbie C. Hassler
ARH—Audrey R. Hoff
RDH—Ron D. Hoff
JCH—Joseph C. Howell
WKJ—Wesley K. James
WJ—William Jernigan
SNK—Susan N. Keeton
RLK—Richard L. Knight
JAK—J. Anthony Koella
LKF—Lee F. Kramer
HL—Howard Langdridge
JLL—Joe L. Levy
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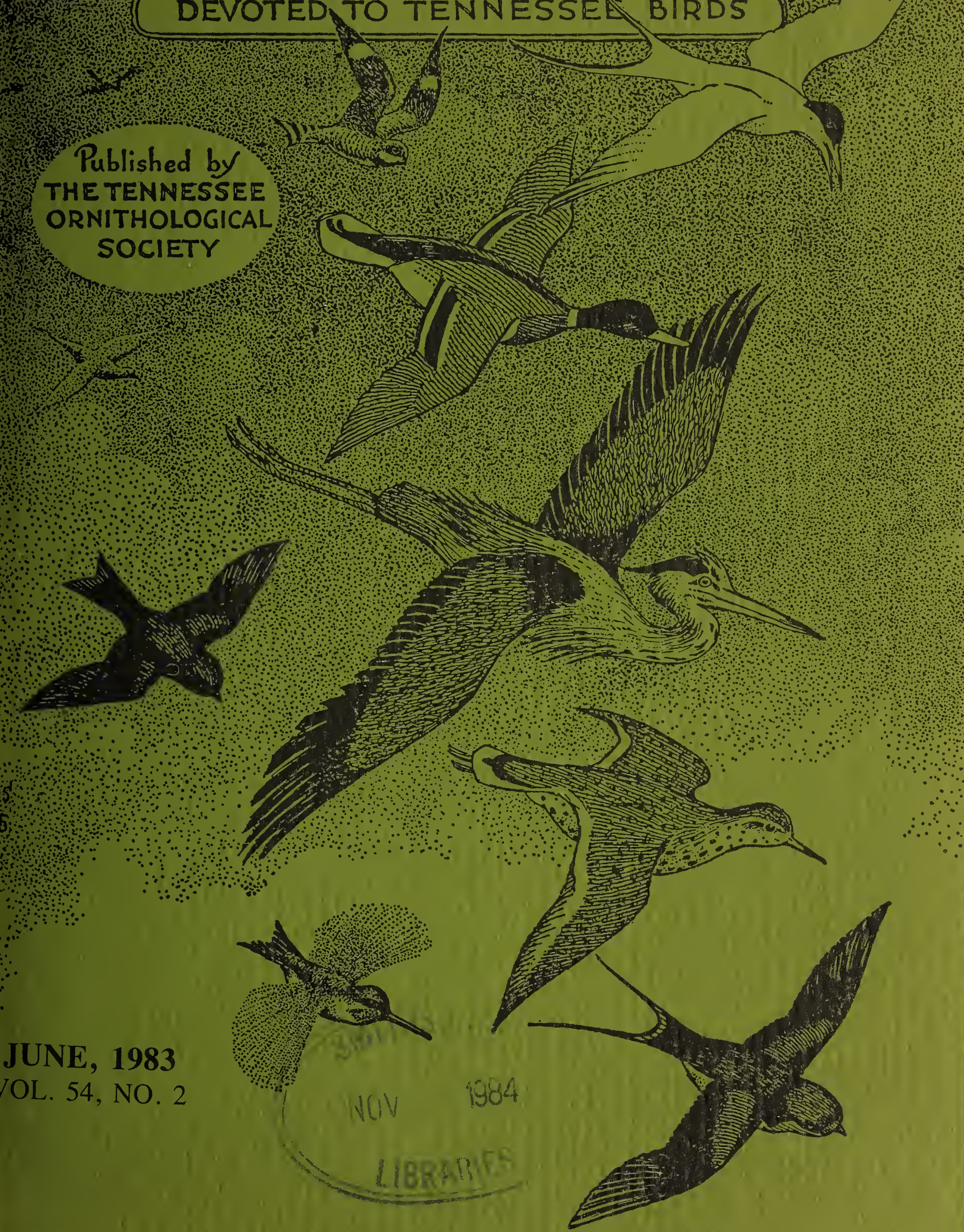
THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS



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SHOREBIRDS OF KINGSTON STEAM PLANT

LINDA J. FOWLER

Shorebirds (Charadriiformes: Charadriidae, Recurvirostridae, and Scolopacidae) migrate through Tennessee enroute to their wintering grounds in South America and coastal U.S. and to their breeding grounds in northern U.S. and Canada. Of the 31 shorebirds that are discussed here, only the Killdeer *(Charadrius vociferus)* and Spotted Sandpiper *(Actitis macularia)* are known to nest in Tennessee. Suitable inland stopover sites are generally scarce with most migrants depending on the exposed shoreline of lakes and rivers. Spring rains begin to fill reservoirs in April, thereby eliminating the majority of this habitat during peak migration periods. Conversely, reservoir shorelines are usually not exposed until mid-October, after peak fall shorebird numbers have passed through. Consequently, inland areas suitable for resting and feeding of migrant shorebirds are very valuable.

The Kingston Steam Plant (KSP), located near the confluence of the Clinch and Emory Rivers and about 5 km from Walden Ridge in Roane County, is one of the few sites in Tennessee where large numbers of migrant shorebirds stop with a high degree of predictability. Birds are attracted to the flats and open waters of the plant's 80 ha ash disposal area (Figure 1). The first published shorebird records for this site appeared in 1970 just three years after the ash disposal area was completed. Scattered records of shorebird sightings appear in the literature from 1970-1978. However, intensive birding was not conducted until 1979 when the site became widely recognized by ornithological groups in the State.

In recognition of its ornithological importance, the KSP was designated as part of the Tennessee Wildlife Resources Agency's Wildlife Observation Area program in 1981. This program identifies and promotes public use of areas in Tennessee with large concentrations of observable wildlife. Although shorebirds are the primary attraction of the KSP site, many species of waterfowl, herons, gulls, terns, raptors, and sparrows are also regularly seen (Checklist of Waterbirds of the Kingston Steam Plant, L. J. Fowler, 1983).

The purpose of this paper is to summarize records on the shorebirds of Kingston Steam Plant from 1970 to March 1983. Based upon these records, early and late observation dates and maximum numbers of each species are listed for both spring and fall seasons. Records for this paper were taken from *The Migrant, American Birds,* International Shorebird Survey computer printout (1980-1983), and from my personal log (1977-1982). Nomenclature follows the American Ornithologists' Union's Checklist of North American Birds (6th edition, 1983).

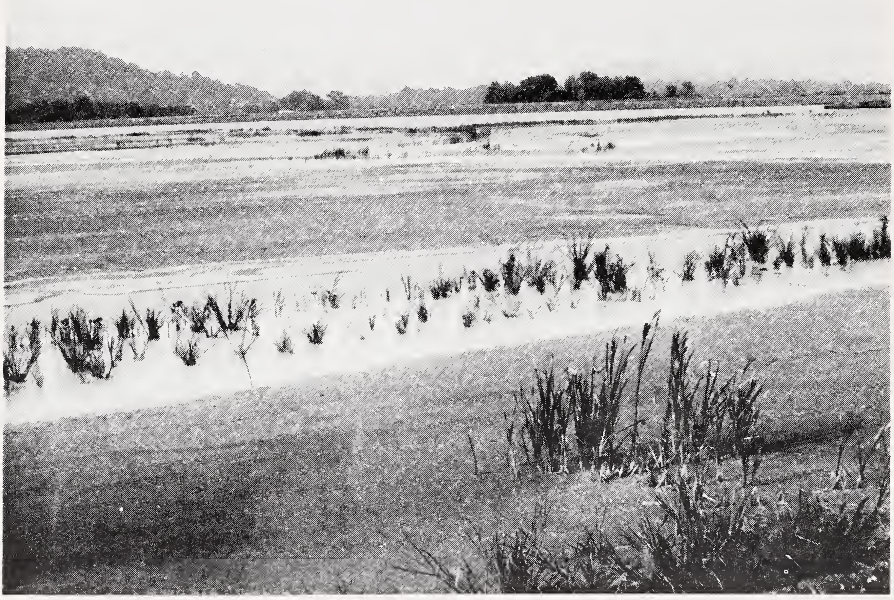


FIGURE 1. Ash disposal pond at Kingston Steam Plant, Roane County, Tennessee. Photo by Linda J. Fowler.

BLACK-BELLIED PLOVER *(Pluvialis squatarola)* — Uncommon spring and fall transient. SPRING — early, 7 May; late, 26 May; maximum, 19 birds on 17 May 1980. FALL — early, 9 August; late, 15 November; maximum, 9 birds on 9 August 1982.

LESSER GOLDEN PLOVER *(Pluvialis dominica)* — Rare spring and uncommon fall transient. Only one spring record: 14 May 1979. FALL — early, 7 September; late, 14 October; maximum, 4 birds on 2 October 1981.

SEMIPALMATED PLOVER *(Charadrius semipalmatus)* — Uncommon spring and fall transient. SPRING — early, 26 April; late, 28 May; maximum, 35 birds on 17 May 1980. FALL — early, 3 July; late, 22 October; maximum, 25 birds on 5 September 1980.

PIPING PLOVER *(Charadrius melodus)* — Rare fall transient. No spring records. FALL — early, 24 July; late, 26 September; maximum, 1 bird.

KILLDEER *(Charadrius vociferus)* — Common spring and fall transient. Breeds locally. Fairly common winter resident in the region in wet plowed fields. Winter record: 12 birds on 28 February 1981. SPRING — early, 2 April; late, 28 May; maximum, 3 birds on 27 May 1981. FALL — 29 June; late, 22 November; maximum, 110 on 22 November 1980.

AMERICAN AVOCET *(Recurvirostra americana)* — Rare fall transient. No spring records. Four fall records: 7 September 1980, 20 July 1981, 7 August 1981, 21 August 1982; maximum, 8 birds on winter plumage on 7 September 1980.

GREATER YELLOWLEGS *(Tringa melanoleuca)* — Uncommon spring transient and fairly common fall transient. SPRING — early, 9 April; late, 19 May; maximum, 10 birds on 9 April 1982. FALL — early, 16 July; late, 31 October; maximum, 50 birds on 31 August 1980.

LESSER YELLOWLEGS *(Tringa flavipes)* — Common spring and fall transient. SPRING — early, 12 April; late, 28 May; maximum, 220 birds on 26 April 1980. FALL — early, 3 July; late, 22 October; maximum, 40 birds on 31 August 1982.

SOLITARY SANDPIPER *(Tringa solitaria)* — Rare fall transient. No spring records; however, the bird is a fairly common spring migrant in the region on small farm ponds. FALL — early, 14 July; late, 31 August; maximum, 4 birds on 14 July 1982.

WILLET *(Catoptrophorus semipalmatus)* — Rare spring and fall transient. SPRING — early, 17 April; late, 17 May; maximum, 20 birds on 27 April 1980. FALL — early, 6 July; late, 3 September; maximum, 2 birds on 9 August 1982.

SPOTTED SANDPIPER *(Actitis macularia)* — Fairly common spring and fall transient. SPRING — early, 29 April; late, 2 June; maximum, 3 birds on 7 May 1982. FALL — early, 3 July; late, 21 October; maximum, 18 birds on 17 August 1981.

UPLAND SANDPIPER *(Bartramia longicauda)* — One record: 16 April 1981 of 1 bird.

WHIMBREL *(Numenius phaeopus)* — Two spring records: 27 May 1979 (18 birds), 24 May 1980 (1 bird).

HUDSONIAN GODWIT *(Limosa haemastica)* — One spring and one fall record: 14 May 1979 (1 bird), 16 August 1982 (1 bird).

MARBLED GODWIT *(Limosa fedoa)* — One record: 16-17 July 1981 (1 bird).

RUDDY TURNSTONE *(Arenaria interpres)* — Rare spring and fall transient. SPRING — early, 19 May; late, 24 May; maximum, 4 birds on 19 May 1981. FALL — early, 29 August; late, 30 September; all records of 1 bird.

RED KNOT *(Calidris canutus)* — Rare fall transient. No spring records. FALL — early, 31 July; late, 22 September; maximum, 4 birds on 14 September 1980.

SANDERLING *(Calidris alba)* — Rare spring and uncommon fall transient. One spring record: 19 May 1981 (1 bird). FALL — early, 18 July; late, 8 October; maximum, 11 birds on 17 September 1980.

SEMIPALMATED SANDPIPER *(Calidris pusilla)* — Common spring and fall transient. SPRING — early, 27 April; late, 4 June; maximum, 215 birds on 31 May 1982. FALL — early, 10 July; late, 7 October; maximum, 200 birds on 12 September 1982.

WESTERN SANDPIPER *(Calidris mauri)* — Rare spring and uncommon fall transient. SPRING — early, 16 May; late, 28 May; maximum, 1 bird 16 May 1981. FALL — early, 18 July; late, 24 September; maximum, 6 birds on 5 September 1981.

LEAST SANDPIPER *(Calidris minutilla)* — Common spring and fall transient. SPRING — early, 27 April; late, 2 June; maximum, 100 on 10 May 1982. FALL — early, 3 July; late, 18 November; maximum, 40 birds on 28 August 1981.

WHITE-RUMPED SANDPIPER *(Calidris fuscicollis)* — Uncommon spring and rare fall transient. SPRING — early, 6 May; late, 4 June; maximum, 25 birds on 17 May 1980. FALL — early, 10 July; late, 11 August; maximum, 4 birds on 11 August 1982.

BAIRD'S SANDPIPER *(Calidris bairdii)* — Uncommon fall transient. No spring records. FALL — early, 13 July; late, 22 October; maximum, 6 birds on 3-24 September 1979.

PECTORAL SANDPIPER *(Calidris melanotos)* — Common spring and fall transient. SPRING — early, 26 April; late, 19 May; maximum, 24 birds on 7 May 1980. FALL — early, 14 July; late, 30 October; maximum, 52 birds on 21 August 1982.

DUNLIN *(Calidris alpina)* — Rare spring and uncommon fall transient. Winter record: 26 January - 9 February 1980 (1-3 birds). SPRING — early, 26 April; late, 17 May; maximum, 50 birds on 17 May 1980. FALL — early, 17 July; late, 18 November; maximum, 20 birds on 22 October 1980.

STILT SANDPIPER *(Calidris himantopus)* — Rare spring and uncommon fall transient. SPRING — early, 15 May; late, 31 May; maximum, 3 birds on 16 May 1982. FALL — early, 16 July; late, 30 September; maximum, 19 birds on 31 July 1982.

BUFF-BREASTED SANDPIPER *(Tryngites subruficollis)* — Rare fall transient. No spring records. FALL — early, 25 August; late, 27 October; maximum, 3 birds on 7 September 1980.

DOWITCHER SPP. *(Limnodromus* spp.) — Rare spring and uncommon fall transient. SPRING — early, 26 April; late, 13 May; maximum, 27 birds on 13 May 1979. FALL — early, 29 June; late, 2 October; maximum, 9 birds on 24 August - 14 September 1981.

COMMON SNIPE *(Gallinago gallinago)* — Rare fall transient. Three fall records: 26 August 1978, 14 September 1979, 10 September 1981. Fairly common in the region in spring and winter in plowed or marshy fields and lake edges.

WILSON'S PHALAROPE *(Phalaropus tricolor)* — Rare fall transient. No spring records. FALL — early, 22 August; late, 15 September; maximum, 3 birds on 7 September 1980.

RED-NECKED PHALAROPE *(Phalaropus lobatus)* — Rare spring and fall transient. SPRING — early, 17 May; late, 26 May; maximum, 2 birds on 18 May 1980. FALL — early, 8 September; late, 23 September; maximum, 1 bird.

Tennessee Valley Authority, Norris, TN 37828. Accepted 1 April 1984.

AUTUMN HAWK FLIGHTS 1982

LINDA J. FOWLER

A total of 10,394 hawks of 13 species was reported from 17 stations in Tennessee during the fall of 1982 (Table 1). Between 22 August and 8 November, 327 observation hours were accumulated, breaking the previous high of 316 hours set in 1975. A Merlin, three Peregrine Falcons, and a Bald Eagle were among the rarest species reported.

Temperatures were slightly below average in September with highest rainfall occurring during 1-3 September at most eastern and middle Tennessee weather stations. The first cold temperatures (below 10°C) were recorded in the state on 22 September; however, no major frontal systems developed during September to concentrate Broad-wing flights.

The first large flocks of Broad-winged Hawks were observed on 17 September at three lookouts. David Highbaugh and Paul Pardue reported 949 Broad-wings from two different sites on Chilhowee Mountain. J. Patton saw 225 Broad-wings in less than one hour at Signal Point, and I saw 101 Broad-wings from Laurel Grove Firetower in 3½ hours of observation. The following day from Snooper's Rock and from the town of Red Bank, Peter Robinson and Randy Stringer each reported Broad-wing numbers exceeding 400. On 20 September the highest daily Broad-wing total was reached when Peter Robinson observed 769 birds from Dunlap Firetower. The following day Bruce Wilkey reported 500 Broad-wings at Dunlap Firetower. From 22 September to 26 September most stations reported Broad-wing numbers barely exceeding 100. However, on 26 September, Ken Dubke saw 416 Broad-wings, the last flight exceeding 100 birds for the season. Total Broad-wing count was 7,370, the lowest since 1976 (Table 2).

A Cooper's Hawk total of 30 birds was similar to last year's total of 31 birds. However, the 114 Sharp-shinned Hawks reported for 1982 was twice last year's total. Higher Sharp-shin numbers this year were associated with the intensive October hawk watching of Ken Dubke at Signal Point. On 10 October, Dubke saw 31 Sharp-shins and 1 Cooper's Hawk at Signal Point in 8 hours of observation, the season's highest daily total.

Red-tailed Hawks were reported in slightly higher numbers than last year. Most stations reported one to three resident Red-tails during September and early October. On 10 and 17 October, Ken Dubke reported seven and nine Red-tails, respectively, at Signal Point. However, the season's highest daily Red-tail total was reported on 24 October when I saw 27 birds from Mt. Roosevelt Firetower. Most of the birds moved through between 2:30 p.m. and 3:15 p.m. with as many as seven birds in a single kettle. In other parts of the southern Appalachian region, Red-tails peaked on 26 October and 13 and 15 November.

Red-shouldered Hawks were reported in half the numbers of last year, but still above the long-term average. Lower numbers this year were partly due to the lower numbers reported from Chilhowee Mountain. In 1981, Barbara Stedman counted 23 Red-shoulders from Chilhowee Mountain in 33 hours of observation. However, in 1982, Audrey Hoff spent 86 hours at Chilhowee Mountain and saw only two Red-shoulders. Hoff's total seems more consistent with the southern Appalachian region and Tennessee's previous season totals, where Red-shoulders make up less than one percent of the season's total hawks.

TABLE 1. SUMMARY OF 1982 AUTUMN HAWK FLIGHTS

Date	Station	Reporter (No. Observers)	Hours	TV	BV	SS	CH	RT	RS	BW	NH	OS	AK	Others	Total
08/22	Kyles Ford FT	R. Nevius (2)	3.5	13		1	1	1		10					26
08/29	Rich Mt. FT	R. Nevius (2)	3.0	3				1		1				1u	6
09/03	Mt. Roosev. FT	L. Fowler (2)	2.5	7		1								3b	11
09/04	Walden FT	L. Fowler (2)	2.5	1		1				3					5
09/05	Kyles Ford FT	R. Nevius (3)	4.5	6		2	1		4	27				1b,1BE	42
09/12	Signal Pt.	K. Dubke (2)	8.0	1		1									2
09/14	Thorn Hill	P. Pardue (1)	2.5	55	2	2	2	2		18					81
09/15	Chilhowee Mt.	P. Pardue (1)	2.0	9	2			2	1	4					18
09/17	Signal Pt.	J. Patton (1)	0.8							225					225
09/17	Chilhowee Mt.	P. Pardue (2)	6.0	38	3	2	1	2	1	291	3				341
09/17	Look Rock	D. Highbaugh (2)	5.3			1				658		1		1u	661
09/17	Laurel Grove FT	L. Fowler (2)	3.5	8			1		1	101				1b,6u	118
09/18	Red Bank	R. Stringer (1)	0.3							430					430
09/18	Signal Pt.	K. Dubke (1)	8.0	4				1		83		2	1		91
09/18	Snooper's Rock	P. Robinson (11)	7.0	3	4	2				416		1		1u	427
09/18	Mt. Roosev. FT	J. B. Owen (2)	5.0	4		2		3		141				1b	151
09/18	Bon Air	S. Bell (5-12)	5.0				1	2		280	2	1		1a	287
09/18	Laurel Grove FT	L. Fowler (2)	3.3	4						298		1		1a,1b	305
09/19	Signal Pt.	K. Dubke (2)	9.0	1		5		3		177					186
09/19	Mt. Roosev. FT	M. Davis (3-11)	6.3	6		2	1	2		34				1a,9b,2u	57
09/19	Meadow Creek FT	R. Spees (2)	6.5				2	1		38	1	1		4b,2PF,1ML	50
09/19	Bon Air	S. Bell (2-12)	7.0			2	6	1	2	389	2		2	2a	406
09/19	Laurel Grove FT	L. Fowler (2)	4.0	5		1				164		1	1	2u	174
09/20	Dunlap FT	P. Robinson	6.0							769					769
09/21	Dunlap FT	B. Wilkey (1)	6.3	3		4		4		500		1			512
09/21	Ooltewah FT	K. Dubke (1)	4.0	4			1								5
09/21	Mt. Roosev. FT	J. B. Owen (3)	4.5							11					11
09/22	Mt. Roosev. FT	J. B. Owen (3-4)	7.0	5				2		124					131
09/22	Laurel Grove FT	L. Fowler (2)	5.0	3	3			2		142				1a,2b,3u	156
09/23	Signal Pt.	R. Watson (1)	3.0							121					121
09/23	Laurel Grove FT	P. Hartigan (1)	4.3	4	4					86				1a,2b	97
09/24	Look Rock	L. Fowler (2)	5.0	1	7			1		13				1b,2u	25
09/25	Signal Pt.	K. Dubke (1)	8.0	2		3		1		4					10
09/25	Laurel Grove FT	L. Fowler (2)	1.5	3				2						1u	6
09/26	Signal Pt.	K. Dubke (2)	9.0	1	3	7		3	1	416	1		4		436
09/26	Dunlap FT	R. Kleinstar (1)	1.0							86					86
09/26	Meadow Creek FT	R. Spees (3)	3.0	4						75					79
09/28	Kyles Ford FT	P. Pardue (1)	1.5	5	2	1		1	2	36	1				48
09/29	Laurel Grove FT	P. Hartigan (2)	4.8	27					1	13				5a,1b,7u	54

10/02	Signal Pt.	K. Dubke (1)	8.0			7	1	1		2					11
10/09	Signal Pt.	K. Dubke (2)	7.0	1		4		5				1		1PF	12
10/10	Signal Pt.	K. Dubke (2)	7.8	8	6	31	1	7	1	1					55
10/16	Signal Pt.	K. Dubke (1)	8.0	4	1	2		5							12
10/17	Signal Pt.	K. Dubke (1)	8.0	29		3	2	9			1			2a	46
10/21	Townsend	G. Wood (2)	2.0	1,845											1,845
10/22	Chilhowee Mt.	P. Hartigan (2)	2.8	23				2						7a,1b	33
10/23	Signal Pt.	K. Dubke (1)	8.0	8	2		1	2	1						14
10/24	Signal Pt.	K. Dubke (1)	8.0	59	2	1		4	1						67
10/24	Mt. Roosev. FT	L. Fowler (1)	2.5	67		1	2	27			1		1	3a,3b	105
11/08	Knoxville	M. Davis (1)	...	41											41
-	[1]Chilhowee Mt.	A. Hoff	86.0	118	46	25	6	27	2	1,183	3	9	2	86u	1,507
-	[2]Mendota FT, VA		81.0	36	89	38	60	19	1	19,250	6	17	15	5BE,2PF,1ML, 9u	19,548
TOTAL			327.5	2,433	87	114	30	126	18	7,370	15	19	11	174	10,394

[1]HMANA Newsletter 8 (2):25. [2]HMANA Newsletter 8 (2):25. Data from Mendota FT are not included in overall total.

TABLE 2. SUMMARY OF 10 YEARS OF AUTUMN HAWK FLIGHTS

Year	Hours	TV	BV	SS	CH	RT	RS	BW	NH	OS	AK	Others	Total**	X̄ Hawks/ Hour
1982	327.5	2,433	87	114	30	126	18	7,370	15	19	11	1ML,3PF, 1BE,166u	7,874	24.0
1981	275.3	566	138	57	31	98	38	14,896	27	23	11	2PF,1MK, 3GE,330u	15,517	56.4
1980	187.3	190	56	80	11	70	13	9,989	12	8	7	1BE,589u	11,026	57.5
1979	204.3	*	*	77	17	127	6	8,779	13	23	15	2ML,3PF, 1GE,1E, 197u	9,255	45.3
1977	235	*	*	161	23	49	5	8,227	6	18	13	1ML,2PF,44u	8,549	36.3
1976	189.8	*	*	62	22	30	5	3,439	15	13	9	64u	3,659	19.3
1975	315.8	*	*	112	32	82	4	11,329	13	11	16	1RL,117u	11,717	37.1
1974	290.0	*	*	35	19	49	8	9,130	7	9	24	1BE,2E,56u	9,340	32.2
1973	199.0	*	*	32	4	37	6	7,079	9	10	2	1PF,1BE, 2GE,89u	7,272	36.5
1972	224.0	*	*	75	16	49	9	8,729	18	24	18	1GO,3RL,3PF 1GE,109u	9,055	40.4

*Data unavailable. **Total does not include vultures.

Northern Harriers were reported in average numbers. In the past two years, over 80 percent of the Northern Harriers were reported from Chilhowee Mountain. In 1982, only 6 of the 15 birds were reported from Chilhowee Mountain (40 percent). Osprey numbers were slightly higher than the past 10-year average. Increased hours of observation, however, may account for this.

A total of 11 American Kestrels was reported in 1982. There have never been a lot of Kestrels seen during the migration season in Tennessee. Within the past 10 years, the highest number of Kestrels seen was 24 birds in 1974 in 290 hours of observation. Four other Falcons were identified during the 1982 season: a Merlin and three Peregrine Falcons. On 19 September, Richard Spees saw two Peregrines and a Merlin from Meadow Creek Firetower. The other Peregrine was spotted by Ken Dubke on 9 October from Signal Point.

A Bald Eagle recorded on this season's count was the first seen since 1980 from a Tennessee lookout. Richard Nevius saw the bird on 5 September from Kyles Ford Firetower. Mendota Firetower, Virginia reported five Bald Eagles in 1982.

As usual, most stations reported resident Turkey Vultures during September. However, on 21 October, George and Hedy Woods watched 1,845 Turkey Vultures fly over their Townsend home between 2:30 p.m. and 4:30 p.m., the largest flock of vultures ever reported from Tennessee. An even later vulture flight was seen by Marcia Davis from her Knoxville office on 8 November. Two groups of Turkey Vultures (35 and 6) were seen heading south. No large flocks of Black Vultures were seen.

KEY TO SPECIES ABBREVIATIONS IN TABLES

BV — Black Vulture; TV — Turkey Vulture; OS — Osprey; BE — Bald Eagle; NH — Northern Harrier; SS — Sharp-shinned Hawk; CH — Cooper's Hawk; GO — Northern Goshawk; RS — Red-shouldered Hawk; BW — Broad-winged Hawk; RT — Red-tailed Hawk; RL — Rough-legged Hawk; GE — Golden Eagle; AK — American Kestrel; ML — Merlin; PF — Peregrine Falcon; a — unidentified Accipiter; b — unidentified Buteo; u — unidentified raptor.

LOOKOUT STATIONS

Thorn Hill — Near the town of Thorn Hill at Bean's Gap on U.S. 25E, there is a scenic lookout with ample parking for hawk watchers to view birds coming down Clinch Mountain. This lookout is on the same ridge as Kyles Ford and Mendota firetowers, and at an elevation of 2,485 feet (757 m) in Grainger County (36°20′55″N, 83°23′40″W, Avondale, Tenn., 7.5″ USGS quad).

Dunlap Firetower — Located just off U.S. 127, this tower is 14 km S of the town of Dunlap in Sequatchie County (35°14′15″N, 85°24′35″W, Ketner Gap, Tenn., 7.5″ USGS quad), at an elevation of 2,367 feet (721 m). From it, hawks can be seen migrating down the west side of Walden's Ridge.

Laurel Grove Firetower — This firetower is located on Walden's Ridge 11 km W of Clinton at an elevation of 1,720 feet (524 m) in Anderson County (36°06′40″N, 84°13′55″W, Clinton, Tenn., 7.5″ USGS quad).

Meadow Creek Firetower — This firetower is located 26 km SW of Greeneville in Cherokee National Forest (35°58′20″N, 82°58′15″W, Paint Rock, Tenn.-N.C., 7.5″ USGS quad), at an elevation of 2,875 feet (876 m). Hawks can be seen migrating down Meadow Creek Mountain in Cocke County, at the eastern edge of the ridge and valley region.

Red Bank — From the town of Red Bank (35°07′45″N, 85°17′00″W, Fairmount, Tenn., 7.5″ USGS quad) in Hamilton County, hawks can be seen migrating down the eastern escarpment of Walden's Ridge.

Rich Mountain Firetower — This tower is located at an elevation of 3,670 feet (1,119 m) on the Greene County, Tennessee - North Carolina state line in the Bald Mountains (35°55′40″N, 82°48′20″W, Hot Springs, N.C. - Tenn., 7.5″ USGS quad).

Snooper's Rock — This rock escarpment is located in Prentice Cooper State Forest on Walden's Ridge overlooking the Tennessee River gorge, Marion County (35°04′45″N, 85°23′45″W, Wauhatchie, Tenn., 7.5″ USGS quad).

Walden Firetower — This tower is located on the Roane - Morgan County border, 5 km NE of Harriman at an elevation of 1,832 feet (558 m) on Walden's Ridge (35°58′35″N, 84°31′05″W, Harriman, Tenn., 7.5″ USGS quad). This tower is located 21 km NE of the Mt. Roosevelt firetower.

Rt. 4, Box 541, Valley Lane, Clinton, TN 37716. Accepted 23 December 1983.

DAVE MATHEWSON Jr
12/83

ROUND TABLE NOTES

BELL'S VIREO IN OBION COUNTY, TENNESSEE — A Bell's Vireo *(Vireo bellii)* was observed by a class of 12 students and me on 27 May 1976 in the southeastern corner of Obion County, Tennessee. The bird was found in a strand of willows *(Salix* sp.) approximately 6 m tall at the edge of a slough adjacent to a paved secondary road. The locality was approximately 3 km northeast of the community of Hop-In. Excellent views were obtained repeatedly and the bird sang frequently as it patrolled the willows in a territorial fashion. On 1 June 1976, a bird was still using the same site. No more than one Bell's Vireo was ever seen during this period. During subsequent visits to the site in 1976 and later years, I failed to observe the bird.

This is apparently the first record of a Bell's Vireo in northwest Tennessee. Previously it was found nesting at Memphis in 1935 (Migrant 6:67, 1935). A Bell's Vireo was also found at Natchez Trace State Park in 1946 (Migrant 42:68, 1946), and on Mud Island, Shelby County in 1971 (Migrant 42:68, 1971). The first nest of a Bell's Vireo in Kentucky was found in 1980 near Paducah, in the western part of the state (Kentucky Warbler 57:77-79, 1981). Because the species normally nests to the north and west of West Tennessee, and into southern Indiana and western Ohio (A.O.U. Check-list of North American Birds, 1983, p. 592), additional occurrences in West Tennessee would not be surprising.

T. David Pitts, Department of Biological Sciences, University of Tennessee at Martin, Martin, TN 38238. Accepted 12 January 1984.

A LAWRENCE'S WARBLER IN SHELBY COUNTY, TENNESSEE — On 13 September 1982, we mist-netted a Lawrence's Warbler *(Vermivora chrysoptera x pinus)* next to the Wolf River on the property of the Shelby County Correction Center on the eastern edge of Memphis, Tennessee. The bird was banded with a standard U.S. Fish and Wildlife Service band and released. On 18 September 1982, the bird was recaptured in the same area and was photographed, weighed, measured, and released. It was in apparent good health, and weighed 10.8 g.

Lawrence's Warbler is the recessive hybrid resulting from a cross between the Blue-winged *(V. pinus)* and Golden-winged *(V. chrysoptera)* Warblers (see Parkes, Wilson Bull. 63:5-15, 1951). We have captured Blue-winged Warblers at this site during past migrations, and an immature bird was captured on 14 September 1982. No Golden-winged Warblers have been captured at this site from the time our mist-netting operations began in 1979. This specimen exhibited typical plumage except for the wings: black ear patch and throat patch separated by yellow; crown, breast and belly yellow; and olive-green back. The wings, however, were more typical of the Blue-winged Warbler, being a blue color. The wing bar and patch were an off-white, not as white as shown in Peterson (A Field Guide to the Birds, Houghton Mifflin Co., 1980).

This is apparently the first Shelby County record of a Lawrence's Warbler.

Robert G. McLean, Mark E. Ritke, and Edward Campos, Division of Vector-Borne Viral Diseases, Centers for Disease Control, Fort Collins, CO 80522-2087, and (MER) Department of Biology, Memphis State University, Memphis, TN 38152. Accepted 15 November 1983.

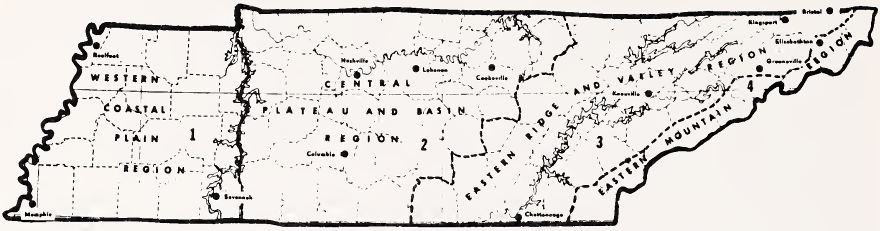
BARNACLE GOOSE IN HUMPHREYS COUNTY, TENNESSEE — On 11 January 1983, I observed a single Barnacle Goose *(Branta leucopsis)* at the Duck River Unit of the Tennessee National Wildlife Refuge, Humphreys County, Tennessee. I first observed the bird at 1355, at a distance of about 150 m as it swam in a flooded fallow field near the main road into the east side of the refuge, 1.9 km SE of Hustburg. With the bird were about 20 Canada Geese *(Branta canadensis)*, and several Mallards *(Anas platyrhynchus)* and Northern Pintails *(Anas acuta)*. Several thousand ducks and Canada Geese were in the surrounding fields. The Barnacle Goose was intermediate in size between the Canada Geese and Mallards, and was readily identifiable by its white face, contrasting with black on the top of the head, neck and chest. I used Bushnell Custom 7 x 35 binoculars and a Bausch and Laumb Discoverer spotting scope, and watched the bird for about 10 minutes until it swam out of sight behind tall weeds in the flooded field. During the time of my observation, the sky was overcast with occasional blowing rain and sleet, and the temperature was in the high 30's°F.

Shortly after I lost sight of the bird, I met Carl Dowdy, a refuge employee, and described my observation to him. He was unaware of any previous reports of Barnacle Geese that winter. A cold front moved through the area that evening, accompanied by a light snowfall and much lower temperatures. I briefly searched, unsuccessfully, for the bird on the morning of the twelfth. The area was worked by numerous other birders the following weekend and later in the winter, but, to my knowledge, none was successful in observing the Barnacle Goose.

This constitutes the fourth Tennessee record of a Barnacle Goose. Previous records are of 2 birds at Cove Lake State Park, Campbell County, 11 February - 17 March 1968 (Koella, T. 1969, Barnacle Goose at Cove Lake State Park, Migrant 40:62-63), a single bird at the same site of my observation, 2 March - 24 April 1970 (Burke, G. M. 1970, Barnacle Goose at Tennessee National Wildlife Refuge, Migrant 41:60-61), and 2 birds at Cross Creeks National Wildlife Refuge, Stewart County, 24-27 January 1976 (Williams, M. D. 1976, The season — Central plateau and basin region, Migrant 47:45).

Charles P. Nicholson, Division of Land and Forest Resources, Tennessee Valley Authority, Norris, TN 37828. Accepted 20 November 1983.

THE SEASON


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

WINTER: 1 DECEMBER 1982 - 28 FEBRUARY 1983

This past winter was mild throughout the state, and several half-hardy lingering species were reported from across the state. Among these were a Spotted Sandpiper, House Wrens, Orange-crowned Warblers, Northern Yellowthroats, and Rose-breasted Grosbeaks. Many invasive species were present in low numbers, and very few Red-breasted Nuthatches, Pine Siskins and Evening Grosbeaks were reported. There were, however, several reports of Rough-legged Hawks from Middle and West Tennessee. Several normal winter residents were present in lower than average numbers.

Results of the 1983 midwinter eagle survey are shown in Table 1. Survey reports from November 1982 through mid-January are summarized, and most of the surveys were conducted 4-9 January. Reports were received from personnel of the Tennessee Wildlife Resources Agency, U.S. Fish and Wildlife Service, U.S. Corps of Engineers, and Tennessee Valley Authority, as well as TOS members. This year's Bald Eagle count is one of the highest ever. The statewide survey, part of a larger nationwide effort, has now been conducted for several years. The time is right for someone to undertake an analysis of population trends of eagles wintering in Tennessee.

Christmas Bird Count is abbreviated "CBC" in the following reports. — CHARLES P. NICHOLSON

WESTERN COASTAL PLAIN REGION — The sewage lagoons near Ensley in southwest Shelby County attracted large numbers of Least Sandpipers, along with Western Sandpipers and Dunlin. Unusual birds reported at feeders were an Indigo Bunting and a Lincoln's Sparrow. The Memphis Christmas Bird Count recorded a Solitary Vireo, a Common Yellowthroat, and a Rose-breasted Grosbeak.

Duck-Gull: Ruddy Duck: 15 Dec (2600) Robco Lake (BBC, LCC, WLW). Turkey Vulture: 19 Dec (1) PEF, MEM, CBC (MTOS). Bald Eagle: 18 Jan (1 ad) Benton Co. and Tenn. River (SB, KAG, VLP). Sharp-shinned Hawk: 19 Dec (2) MEM, CBC (MTOS); 18 Jan (1) MEM (SB, KAG, VLP). Rough-legged Hawk: 30 Jan (1) ESL (JRW); 4 Feb (1) Britton Ford, Henry Co. (SG, AH, JCM, VLP, HS). Least Sandpiper: 19 Dec (125) ESL, MEM, CBC (MTOS); 1 Jan (346), 15 Jan (38), 30 Jan (84) ESL (JRW). Western Sandpiper: 1 Jan (4), 30 Jan (3) ESL (JRW). Dunlin: 19 Dec (12) ESL, MEM, CBC (MTOS); 1 Jan (7), 15 Jan (2), 30 Jan (1) ESL (JRW). Gull species: 4 Feb (10,000) Paris Landing State Park, Henry Co. (SG, AH, JCM, VLP, HS).

TABLE 1. 1983 MIDWINTER EAGLE SURVEY

		Bald Eagle			Golden Eagle		Unid. Eagle
	Adult	Imm.	Unk.	Total	Adult	Imm.	
West Tennessee							
Reelfoot Lake	84	44	4	132	-	-	-
Mississippi River	2	-	-	2	-	-	-
Open Lake	1	2	-	3	-	-	-
Tennessee NWR	22	32	-	54	3	-	-
Pickwick Resvervoir	3	-	-	3	-	-	-
Totals	112	78	4	194	3	-	-
Middle Tennessee							
Land-Between-the-Lakes	6	5	-	11	-	-	-
Cross Creeks NWR	5	4	-	9	-	-	-
Cheatham Reservoir	1	-	-	1	-	-	-
Caney Fork River	1	-	-	1	-	-	-
Center Hill Resv.	1	1	-	2	2	-	2
Cordell Hull Resv.	3	-	-	3	-	-	3
Dale Hollow Resv.	27	16	-	43	-	-	-
Woodbury	-	-	-	-	1	-	-
Woods Reservoir	2	3	-	5	-	-	-
Totals	46	29	-	75	3	-	5
East Tennessee							
Norris Reservoir	6	-	-	6	-	-	-
Douglas Reservoir	3	-	-	3	-	-	-
Melton Hill Resv.	-	1	-	1	-	-	-
Watts Bar Resv.	15	4	-	19	1	-	-
Chickamauga Resv.	1	1	-	2	-	-	-
Nickajack Reservoir	2	1	-	3	-	-	-
Chilhowee Reservoir	1	-	-	1	-	-	-
Cades Cove	-	-	-	-	-	-	1
Totals	28	7	-	35	1	-	1
GRAND TOTALS	186	114	4	304	7	-	6

Wren-Finch: House Wren: 19 Dec (2, different locations) MEM, CBC (RTC, TC). Marsh Wren: 6 Dec (2) Air Park Inn, REL (RJM). Solitary Vireo: 19 Dec (1) MEM, CBC (GRP, EJR). Orange-crowned Warbler: 19 Dec (1) MEM, CBC (RTC); 29 Jan (1), 2 Feb (1) MEM (MGW). Pine Warbler: 19 Dec (5 total, 3 different locations) MEM, CBC (MTOS). Common Yellowthroat: 18 Dec (2) Air Park Inn, REL, CBC (BBC, LCC, GRP, WLW). ROSE-BREASTED GROSBEAK: 19 Dec (1) MEM, CBC (DAD, MTOS). INDIGO BUNTING: 22 - 28 Feb (1) BAR (JRW). Amer. Tree Sparrow: 4 Feb (20) Air Park Inn, REL (SG, AH, JCM, VLP, HS). LeConte's Sparrow: 15 Jan (1) PEF (CHB, MGW, JRW). Lincoln's Sparrow: 14-28 Feb (1) BAR (JRW). LAPLAND LONGSPUR: 16 Jan (1), 21 Jan (50) PEF (CHB). Rusty Blackbird: 8 Dec (16) PEF (CHB, HBD, SCF, SSL, MGW); 1 Jan (10) ESL (JRW); 16 Jan (75) PEF (CHB, MGW); 23 Jan (150) PEF (CHB, DAD, MGW, JRW); 30 Jan (43) ESL (JRW). Northern (Baltimore) Oriole: 10 Jan - 28 Feb (1 female) MEM (SNK). House Finch: 8 Dec - 28 Feb (1) MEM (SLL); 11-15 Feb (1) MEM (WRP).

Locations: BAR — Bartlett, Shelby Co.; MEM — Memphis; PEF — Shelby Co. Penal Farm; REL — Reelfoot Lake, Lake Co.; ESL — Ensley Sewage Lagoons, Shelby Co.

Martha G. Waldron, 1626 Yorkshire Drive, Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION — Winter this year was relatively warm and wet, particularly in February, and predictably a number of species characteristic of mild winters were present, including Green Heron, Sora, Least Sandpiper, Sedge Wren, Palm Warbler, Common Yellowthroat, and LeConte's Sparrow, as well as the less predictable Indigo Bunting and Rose-breasted Grosbeak. Additionally, a few rarities were reported; among these were Western Grebe, Barnacle Goose, and Northern Goshawk.

A preliminary assessment of Christmas Bird Count information indicates that permanent resident species were generally present in higher than normal numbers this winter, especially avian predators, while species resident in the region only during the winter months were present in lower than normal numbers, especially waterfowl. The former phenomenon was probably due in part to the mildness of the winter (but also to other factors such as breeding success the preceding summer), while the latter one may be attributable to these species staying farther north than usual, again due to the mildness of the winter weather. Comparison of total individuals recorded in middle Tennessee on eight Christmas Bird Counts with the average of total individuals seen on the previous five years' counts revealed these trends. Twenty-six permanent resident species were recorded in numbers more than 25 per cent higher than the previous five year average. Of these many were raptors, an encouraging sign for these species. Included were such species as Turkey Vulture, Black Vulture, Red-tailed Hawk, Red-shouldered Hawk, American Kestrel, Barn Owl, Great Horned Owl, Barred Owl, Bewick's Wren, and Loggerhead Shrike. Seventeen other permanent resident species (some of which breed only in limited numbers) were stable compared to the previous five-year average. This group was comprised of the following species: Black-crowned Night-Heron, Canada Goose, Wood Duck, Sharp-shinned Hawk, Cooper's Hawk, Killdeer, American Woodcock, Rock Dove, Eastern Screech-Owl, Belted Kingfisher, Common Flicker, Pileated Woodpecker, Red-bellied Woodpecker, Red-headed Woodpecker, Downy Woodpecker, Blue Jay, and Rufous-sided Towhee. Only one permanent resident species, the Brown Thrasher, was present in numbers more than 25 per cent lower than the previous five-year average. Why this species was recorded so much less frequently — it was down 54 per cent — than in the five previous winters, especially during a mild winter, is a puzzle.

In general, winter resident species were present in lower than normal numbers this season. Compared to the average of the previous five CBCs, only four species were more than 25 per cent higher than the average. One of these was the Rough-legged Hawk; its increase correlates with increases in raptors virtually across the board. The other three species which increased were Golden-crowned Kinglet, which had one of its best years ever, Swamp Sparrow, and Song Sparrow, which is coming close to being a permanent resident of the region. Twelve stable winter resident species were Common Loon, Northern Harrier, Common Snipe, Ring-billed Gull, Brown Creeper, Winter Wren, Hermit Thrush, Purple Finch, Savannah Sparrow, Dark-eyed Junco, White-crowned Sparrow, and White-throated Sparrow. Another twelve species were recorded in numbers which were more than 25 per cent lower than the previous five-year average: Horned Grebe, Pied-billed Grebe, Ring-necked Duck, Canvasback, Lesser Scaup, Bufflehead, Hooded Merganser, Herring Gull, Yellow-bellied Sapsucker, Ruby-crowned Kinglet, Yellow-rumped Warbler, and Fox Sparrow.

An effort was made to exclude from these comparisons all erratic species (such as Pine Siskin and Evening Grosbeak), species which wander as their food supply is depleted (such as American Robin and Cedar Waxwing), and species which showed great variation in numbers over the previous five years (many ducks and blackbirds, etc.). On the other hand, it must be acknowledged that several factors, including changing numbers and locations of middle Tennessee CBCs, changing numbers of party hours, and changing weather conditions, were not adjusted for in making these comparisons. In spite of these variables, however, there still emerges from the 1982 CBCs a picture of some promise for regional species, particularly those which reside here year-round. The following compilation of species seen in the region throughout the season relies more on CBC data than has been normally the case mainly due to a paucity of records received by the compiler, who earnestly requests that all regional and state observers forward records to him on or before the dates established by the editor. Many thanks to those who did submit data.

Loon-Ducks: Common Loon: 18 Dec (1) Lebanon CBC (Melissa Cannon, Ruth McMillan, Alice Savage); 1 Jan (21) Hickory-Priest CBC (NTOS); 8 Jan (1) Dale Hollow Lake, PIC (RCH). Horned Grebe: 1 Jan (53) Hickory-Priest CBC (NTOS); 24 Jan (1) Franklin Reservoir, WMC (SJS). WESTERN GREBE: 1 Jan (1) Old Hickory Lake, DVC (MLM, Lee F. Kramer); bird was seen for a few days thereafter. Double-crested Cormorant: 8 Jan (1) Dale Hollow Lake, PIC (RCH). Green Heron: 28 Dec (1) Columbia, MUC (William G. Fuqua); 2 Jan (1) Duck River Reservoir CBC, MUC (Dan Gray). Tundra Swan: 18 Dec (1) Lebanon CBC (Ray Pope, Fred Detlefsen). Snow Goose: 4 Jan (1) Metro Center, DVC (CGD); 22 Jan (1 "blue") Franklin Res., WMC (BHS, SJS). BARNACLE GOOSE: 11 Jan (1) DRU (CPN); details will be published. BRANT: 30 Dec (1) and 4 Jan (1) CCNWR (DWB); last sightings of this bird which was present at CCNWR since 17 Dec 81 (DWB). Green-winged Teal: total of 46 on 8 CBCs; 13 Dec (1) Franklin Res., WMC (SJS). Black Duck: regional high 450 on Ashland City CBC; 4 Feb (24) Franklin Res., WMC (SJS). Mallard: regional high 3,649 Lebanon CBC; 17 Dec (17) Franklin Res., WMC (SJS). Gadwall: regional high 685 Lebanon CBC; 1 Feb (20) Franklin Res., WMC (SJS). Canvasback: 11 Dec - 1 Feb (up to 42) Franklin Res., WMC (SJS, BHS); only 5 on 8 regional CBCs. Ring-necked Duck: 20 Feb (250+) Lewis Pond, SUC (DTC, JPC); CBC total low. Common Goldeneye: regional high 6 Hickory-Priest CBC; 13 Dec (1) and 17 Dec (2) Franklin Res., WMC (SJS). Bufflehead: regional high 50 Nashville CBC (Radnor L.) (NTOS); 17 Dec (3) Franklin Res., WMC (SJS). Hooded Merganser: regional high 54 Lebanon CBC; 24 Jan - 4 Feb (1) Franklin Res., WMC (SJS). Common Merganser: 1 Jan (1) Hickory-Priest CBC (CGD, RM); 17 Jan (2) Old Hickory Dam, DVC (CGD); 12 Feb (6) Ashland City (SR). Red-breasted Merganser: 18 Dec (3) Ashland City CBC (NTOS); 24 Jan (1) Franklin Res., WMC (SJS). Ruddy Duck: 18 Dec (2) Columbia CBC (CLTOS); 11 Dec - 1 Feb (up to 6) Franklin Res., WMC (SJS, BHS).

Diurnal Raptors: Northern Harrier: total of 21 on 8 CBCs; 30 Jan (1) GSP (DTC, JPC); 12 Feb (1) Ashland City (SR). Sharp-shinned Hawk: 6 on 8 CBCs; 26 Feb (1) Byrdstown, PIC (RCH). Cooper's Hawk: 7 on 8 CBCs; 15 Jan (1) Dickson County (RM, CGD); 12 Feb (1) Ashland City (SR). GOSHAWK: at least one injured bird found in Cottontown, SUC, brought to Virginia Price during period. Red-shouldered Hawk: 26 on 8 CBCs; 26 Jan (5) Byrdstown, PIC (RCH). Red-tailed Hawk: 166 on 8 CBCs; 18 Dec - 22 Jan (1 dark phase) Ashland City (RM, CGD, SJS, BHS). Rough-legged Hawk: 5 on 8 CBCs; 4 Jan (1) CCNWR (DWB); 15 Jan *(5)* Ft. Campbell, MTC (SJS, BHS, Audrey R. Hoff); 23 Jan (1) Poole Knobs, Percy Priest Lake, DVC (SJS); good year for this species. Golden Eagle: 6 Dec (1) DRU (CGD); 14 Dec (1) CCNWR (DWB); 18 Dec (1) Ashland City CBC (MLM, M. Pat Stallings, Jan C. Alexander); 29 Dec (1) Barkley WMA, SWC (DWB); 15 Jan (1) DRU (RM, CGD).

Rail-Goldfinch: Sora: 18 Dec (3) Columbia CBC (CLTOS); 29 Dec (1) Metro Center, DVC (DFV). Virginia Rail: 18 Dec (5) Columbia CBC (CLTOS). American Coot: 8 Jan (30) Dale Hollow Lake, PIC (RCH). Sandhill Crane: 11 Dec (7) Bear Creek WMA, SWC (DWB). Least Sandpiper: 8 Dec (1) GSP (DTC, JPC). Great Horned Owl: 32 on 8 CBCs; 26 Feb (2) Byrdstown, PIC (RCH). Barred Owl: 28 on 8 CBCs; 23 Feb (2) Byrdstown, PIC (RCH). Eastern Phoebe: 15 on 8 CBCs; 19 Feb (1 calling) Byrdstown, PIC (RCH); 20 Feb (1 checking nest site) Leiper's Fork, WMC (BHS). Bewick's Wren: 10 on 8 CBCs; encouraging number. Sedge Wren: 26 Dec (1) Nashville CBC (RM, Jim Snapper). Palm Warbler: 1 Jan (7) Hickory-Priest CBC (NTOS). Common Yellowthroat: 26 Dec (1) Nashville CBC (Miriam Weinstein, Hardy Wilcoxon). Rose-breasted Grosbeak: 19 Dec - 10 Jan (1 im. male) Columbia, MUC (George R. Mayfield, Jr.). Indigo Bunting: 17 Dec (1) Leiper's Fork, WMC (SJS); 21 Feb to end of period (1 male) Nashville (Terry R. Murray, *fide* DFV). LeConte's Sparrow: 18 Dec - 12 Feb (up to 11) Ashland City (SJS, DFV, SR). Dark-eyed Junco: 21 Jan (1 "Oregon") Santa Fe, MUC (Catherine and Robert Zseltvoy). Purple Finch: all season (320 banded) Leiper's Fork, WMC (SJS, BHS). House Finch: 10 Dec (1) Byrdstown, PIC (RCH); 21 Jan - 12 Feb (1) Loretto, Lawrence Co. (Damien J. Simbeck, Don K. Simbeck); first county record. Pine Siskin: 26 Feb (1) Columbia, MUC (O. Bedford Lochridge). American Goldfinch: all season (144 banded) Leiper's Fork, WMC (SJS, BHS).

Locations: CBC — Christmas Bird Count; CCNWR — Cross Creeks National Wildlife Refuge, Stewart County; DRU — Duck River Unit, Tennessee National Wildlife Refuge, Humphreys County; DVC — Davidson County; GSP — Gallatin Steam Plant, Sumner County; MTC — Montgomery County; MUC — Maury County; PIC — Pickett County; SUC — Sumner County; SWC — Stewart County; WMA — Wildlife Management Area; WMC — Williamson County.

STEPHEN J. STEDMAN, Rt. 6, Pinewood Rd., Franklin, TN 37064.

EASTERN RIDGE AND VALLEY REGION — This has been a mild winter and is probably the main reason why the large number of half-hardy species was recorded in the southern portion of the region. On the warm date of 8 January the compilers decided to drive by and check the status of the Armstrong Bend Heron Rookery. To their pleasant surprise a Great Blue Heron was standing on every nest! American Woodcocks were observed singing regularly in Greene County during January and February.

The very intense field work associated with the Christmas Bird Counts resulted in a large number of species and birds being recorded. In particular we recommend close study of the Chattanooga and Hiwassee counts as these are areas we are most familiar with. Rather than duplicate this material we will stress observations other than the counts.

The extra effort expended during the Christmas Counts demonstrated this was not a "northern finch" winter. The only Red-breasted Nuthatches reported were those associated with the Christmas Bird Counts. A very few Pine Siskins were sighted at feeders and only one Evening Grosbeak was reported for the entire season.

Loon-Goose: Common Loon: 1 Dec (44) BOL (RLK); 1-18 regular CHL (KHD, LHD). Horned Grebe: 1 Dec (12) BOL (RLK); 19 Dec (1) KNC (MLD); regular, max 21 Dec (46) CHL (KHD, LHD). Pied-billed Grebe: 3 reports of 2 birds DOL (JAK); regular, max 21 Dec (66) CHL (KHD, LHD). Double-crested Cormorant: 1 Dec BOL (RLK); 4 Feb (5) TEL (CPN); four records CHL with max 7 Dec (5) (KHD, LHD). Great Blue Heron: 26 Nov (205) DOL (JAK); regular, max 25 Jan (103) HRA (KHD, LHD). Green Heron: 17 Dec (1) KNC (PAH); 4 Jan and 21 Feb (1) CHL (KHD, LHD). Black-crowned Night-Heron: 6 birds were found in a new wintering area near Louisville (MLD). Tundra Swan: 17 Jan (7) HRA (DMJ); 27 Jan - 1 Feb (6-12) HRA (CWC). Canada Goose: regular, max 8 Jan and 8 Feb (500) HRA (KHD, LHD). Snow Goose: 4 Jan (2 blue phase) HRA (KHD, LHD); 16 Jan (9 white phase) HRA (DMJ); 25 Jan and 14 Feb (1 white phase) HRA (KHD, LHD); 21 Feb (1 white phase) MHL (WKJ).

Mallard-Merganser: Mallard: max 110 DOL (JAK); regular, max 4 Jan (5,000) HRA (KHD, LHD). Amer. Black Duck: max 20 DOL (JAK); regular, max 27 Dec (500) HRA (KHD, LHD). Gadwall: 5-13 Feb (5-7) JNB (RLK); max 100 DOL (JAK); regular, max 27 Dec (500) CHL (KHD, LHD). Pintail: 5 Feb (3) JNB (RLK); 12 Feb (40) DOL (JAK); regular, max 27 Dec - 31 Jan (60) HRA (KHD, LHD). Green-winged Teal: 14 Jan (1) EJC (Sally Goodin, Glenn Swofford); max 100 DOL (JAK); regular, max 13 Dec - 8 Jan (300) HRA (KHD, LHD). American Wigeon: max 100 DOL (JAK); regular, max 4 Jan (150) HRA (KHD, LHD). Northern Shoveler: 27 Dec (3) HRA (KHD, LHD). Ring-necked Duck: max 122 DOL (JAK); regular, max 8 Jan (250) HRA (KHD, LHD). Scaup, species: 7 Dec (545) CHL (KHD, LHD); Greater Scaup: regular, max 31 Jan (230) CHL (KHD, LHD). Lesser Scaup: 3 reports of 2 birds DOL (JAK). Common Goldeneye: regular, max 25 Jan (20) CHL (KHD, LHD). Bufflehead: regular, max 18 Jan (10) CHL (KHD, LHD). Ruddy Duck: much more regular than usual with max 21 Feb (35) CHL (KHD, LHD). Hooded Merganser: 5-20 irregular on BOL Jan and early Feb (RLK); only one report DOL (JAK); regular, max 21 Dec (160) HRA (KHD, LHD). Common Merganser: 14 Feb (1) HRA (KHD, LHD). Red-breasted Merganser: 27 Dec (15) HRA (KHD, LHD).

Osprey-Gull: Osprey: mid-Dec along the French Broad River, KNC (DS); 31 Dec (1) HRA (RDH, ARH, BHS, SJS). Sandhill Crane: 7 Dec (7) migrating over Chattanooga (RCS); 9 Dec (1) Monroe Co. (WKJ); 9 Dec (25 noted roosting on water's edge, then feeding in a nearby field) SAB (KHD, LHD); 19 Feb (4) HRA (CWC, Brainerd Cooper, Jr., Louise J. Cash). American Coot: regular, max 8 Jan (1,500) CHL (KHD, LHD); regular, max 7 Dec (1,100) HRA (KHD, LHD). Killdeer: regular, max 6 Dec (291) SAB (KHD, LHD); regular, max 27 Dec (270) HRA (KHD, LHD). American Woodcock: 6 Jan - 26 Feb (1-2 singing) GNC (Richard and W. Ruth Nevius). Common Snipe: 27 Dec (100) GNC (Fred Simpson); regular, max 28 Dec (95) SAB (KHD, LHD). Spotted Sandpiper: one first found on CHL 18 Dec (RCS *et al.*), then recorded at the same location till the end of the period (KHD, LHD). This is the first local winter record. Greater Yellowlegs: 7 Dec, 21 Feb (1) HRA (KHD, LHD). Least Sandpiper: 16 Jan (16) DOL (JAK); 1-6 occasional at both SAB and HRA (KHD, LHD). Dunlin: numbers ranged from 0 to 120 during the season DOL (JAK); 1-79 sporadic at both SAB and HRA (KHD, LHD). Herring Gull: regular, max 25 Jan (12) CHL (KHD, LHD). Ring-billed Gull: regular, max 25 Jan (475) CHL (KHD, LHD). Laughing Gull: 6 Feb (1) CHL (RCS). Bonaparte's Gull: 4-25 Jan (3-12) CHL (KHD, LHD).

Tern-Nuthatch: Forster's Tern: 31 Jan (1) CHL (KHD, LHD). Owls: from the EJC area Glen Eller commented that Barn and Barred Owls were not noted in their section while Screech Owls were reported in normal numbers; Great Horned Owls were on the increase; one active nest site HRA (KHD, LHD). Red-headed Woodpecker: 6-27 Jan (1) JNB (RLK). Eastern Phoebe: 21 Dec (1) HRA (KHD, LHD); 25 Jan, 14 Feb (2) HRA (KHD, LHD). Horned Lark: 1 Feb (60) JNB (RLK); 40+ regular WHP, 100+ regular McDonald, GNC, 20+ regular DOL (JAK). Purple Martin: first 25 Feb (1) Knoxville (Paul S. Pardue). Common Raven: one on 10 Jan at a very low elevation near Johnson City; every year they seem to get more low elevation sightings. Red-breasted Nuthatch: only reports were those found on CBCs.

Pipit-Sparrow: Water Pipit: 13 Dec (125) Vonore (CPN); reported from three different areas of KNC — 18 Dec (74), 8 Jan (20), 5 Feb (10) (PAH); 28 Dec (165) SAB (KHD, LHD). Loggerhead Shrike: 13 Dec (2) and 4 Feb (1) Vonore (CPN); 4 Feb (1) Benfield (CPN); 7 and 25 Feb (1) Norris (CPN); 13 and 21 Dec, 12 Jan (1) KNC (PAH); one all period SAB (KHD, LHD). Palm Warbler: 18 Dec (3) on the Chattanooga CBC (PDR, KHD *et al.*) with one still present in the same area 7 Feb (KHD, LHD). Rose-breasted Grosbeak: 11 Dec - 20 Jan (1 male) this bird came each day to a bird feeder in Col (Benton Basham, LHD). Evening Grosbeak: the only sighting seems to be one bird reported by Nancy Shepard in Maryville on 5 Jan. Purple Finch: about normal sightings EJC with no big flocks reported (LHTOS); present in good numbers KNC, but not as plentiful at feeding stations (KTOS). House Finch: increasing in EJC area with many small flocks at feeding stations; continuing its increase and expansion in KNC. Observed in high numbers at some feeders in Oak Ridge, Knoxville and other surrounding areas (KTOS). Pine Siskin: none were reported in the EJC area (LHTOS); only one in Greeneville by Ben Britton; several records of single birds at feeders in KNC, but no flocks reported there (KTOS); the only report from the Chattanooga area was one bird present at a feeder in Col from 20 Jan to 20 Feb (REL). Savannah Sparrow: not as common this year at their usual sites WHP; for example, on his farm JAK would only find 10 where previous seasons 20-30 were found. Vesper Sparrow: 8 Jan (5) HRA (KHD, LHD); 16 Jan (3) HRA (ACD). Chipping Sparrow: a "few" regular all period Col, one banded 3 Feb (REL). White-crowned Sparrow: last year at WHP they could be found at 6 sites, but this season only at 4 with their numbers ranging from 5 to 50 at each site (JAK).

Locations: BOL — Boone Lake; CHL — Chickamauga Lake; Col — Collegedale; DOL — Douglas Lake; EJC — Elizabethton - Johnson City; GNC — Greene County; JNB — Jonesboro; KNC — Knox County; MHL — Melton Hill Lake; SAB — Savannah Bay; TEL — Tellico Lake; WHP — White Pine.

Kenneth H. and Lillian H. Dubke, 8139 Roy Lane, Ooltewah, TN 37363.

EASTERN MOUNTAIN REGION — This area experienced one of its mildest winters in several years. The middle two weeks of December, the middle two weeks of January, and the first half of February were the only periods of cold, snowy weather. Precipitation was below average in January and February. The Roan Mountain Christmas Bird Count, held on 26 December, had unusually warm temperatures of 46-62° F. This was the warmest since the count was begun in 1950.

While the weather was very mild, birding was sometimes poor. Waterfowl numbers were low, and no large numbers of normally common American Wigeon, Ring-necked Ducks, or scaup were noted. There was almost no invasion of northern finches, with only a few Evening Grosbeaks, Pine Siskins, and Red Crossbills recorded. Red-breasted Nuthatches, Golden-crowned Kinglets, and Winter Wrens were in much lower than average numbers in the mountains.

Perhaps the best bird of the period was the Orange-crowned Warbler which appeared at a feeder in Elizabethton in late January and stayed past the end of the period. This bird fed on suet and was seen by many observers.

Loon-Owls: Common Loon: 3 Dec (2), 18 Dec (1), 28 Jan (5) WatL (MD, SG, RLK, GS). Horned Grebe: 18 Dec (1), 28 Dec (5), 3 Jan (6) WatL (MD, RLK, GS). Canada Goose: 28 Dec (2) WatL (SG). Wood Duck: 26 Feb (2) SmV (GDE) first spring report. American Wigeon: 18 Dec (1) WibL (RL) only report. American Goldeneye: 3 Jan (2) WatL (RLK); 28 Jan (1) WibL (SG); 18 Feb (1) WibL (MD). Common Merganser: 5-18 Dec (1) WatR (GDE, HLF, SG, RL). Red-breasted Merganser: 3 Jan (4) WatL (RLK) only report. Ruddy Duck: 2-5 Dec (1) SmV (GDE, HLF); 18 Dec (1) WibL (SG, RL). Vultures: a roost near SHL contained up to 30 Black Vultures and 130 Turkey Vultures (RLK, RL, *et al.*). Sharp-shinned Hawk: 9 separate reports during period, about average. Cooper's Hawk: 6 separate reports during period, about average. Red-shouldered Hawk: 28 Jan (2) WatL (SG, MD); 22 Feb (1) St. Johns (RLK). Common Barn-Owl: 12 Dec (1) SHL (RL) only report. Great Horned Owl: 2 nest sites near SHL (RL); 1 site near WibL (RLK).

Phoebe-Warbler: Eastern Phoebe: above average numbers throughout period. Horned Lark: 26 Feb (3) SmV (GDE). Common Raven: several low elevation sightings along with normal reports from Roan and Iron Mountains (GDE, RLK). Red-breasted Nuthatch: only 3 reports from ELI area. HOUSE WREN: 18 Dec (1) ELI (RLK). Winter Wren: no reports from ELI area. Hermit Thrush: only 4 reports from ELI area, below average. Eastern Bluebird, Carolina Wren, Loggerhead Shrike: all reported in above average numbers in ELI area. ORANGE-CROWNED WARBLER: 27 Jan through end of period (1) ELI (BW *et al.*).

Sparrows-Grosbeak: Fox Sparrow: 8 Jan (1) Roan Mountain (RLK); 20 Feb (1 banded) SHL (RL). White-throated and White-crowned Sparrows: present in below average numbers in ELI area. Purple Finch: present in average numbers in ELI area. House Finch: 2-3 small flocks at feeders in ELI area. Red Crossbill: 10 Dec (3) WatL (MD, SG, RLK). Evening Grosbeak: 6 Jan (1) ELI (BW), 8-16 Jan (1) ELI (Lynn Miller); 26 Jan (1) SHL (RL), all reports of females.

Locations: ELI — Elizabethton; SHL — South Holston Lake; SmV — Siam Valley near Elizabethton; WatL — Watauga Lake; WatR — Watauga River; WibL — Wilbur Lake.

Glen D. Eller, Route 3, Box 52, Grandview Terrace, Elizabethton, TN 37643.

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SB—Sandra Bevins
DWB—Donald W. Blunk
CHB—Carolyn H. Bullock
CWC—Carl W. Campbell
TC—Tiny Carpenter
RTC—Robert T. Casey
BBC—Ben B. Coffey, Jr.
LCC—Lula C. Coffey
DTC—Dot T. Crawford
JPC—J. Paul Crawford
DAD—Dollyann Daily
ACD—Angela C. Davis
MLD—Marcia L. Davis
MD—Martha Dillenbeck
HBD—Helen B. Dinkelspiel
CGD—C. Gerald Drewry
KHD—Kenneth H. Dubke
LHD—Lillian H. Dubke
GDE—Glen D. Eller
HLF—Harry L. Farthing
SCF—Sue C. Ferguson
SG—Sally Goodin
KAG—Katherine A. Goodpasture
SGR—Sarah Greene
RCH—Robbie C. Hassler
ARH—Audrey R. Hoff
RDH—Ron D. Hoff
AH—Ann Houk
SNK—Susan N. Keeton
RLK—Richard L. Knight
JAK—J. Anthony Koella
RL—Richard Lewis
SLL—Selma L. Lewis
REL—Mrs. R. E. Lynn
MLM—Margaret L. Mann
DMJ—Dave Mathewson, Jr.
JCM—Jane C. Maynard
RM—Rocky Milburn
CPN—Charles P. Nicholson
GRP—George R. Payne
WRP—W. Robert Peeples
VLP—Virginia L. Price
SR—Steve Rannels
EJR—Earnest J. Restivo
DS—David Shiflett
BHS—Barbara H. Stedman
SJS—Stephen J. Stedman
HS—Helen Sterling
RCS—Randy C. Stringer
GS—Glen Swafford
MGW—Martha G. Waldron
BW—Barbara Walsh
WLW—Wendell L. Whittemore
JRW—Jeff R. Wilson
CLTOS—Columbia Chapter, TOS
KTOS—Knoxville Chapter, TOS
LHTOS—Lee Herndon Chapter, TOS
MTOS—Memphis Chapter, TOS
NTOS—Nashville Chapter, TOS

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THE 1983 SPRING FIELD DAYS

RICHARD L. KNIGHT

This year 225 species were recorded on 13 counts across Tennessee. The species total is a record high, exceeding considerably the 217 species reported in 1977 and 1981. This accomplishment was greatly enhanced by having the TOS Spring Meeting at Reelfoot Lake, as 13 species were found exclusively in that area. Thirteen counts is about the average of the past decade. Nashville and Reelfoot Lake lead all counts with an impressive 180 species each.

The most unusual species reported were Black Rail, Black-necked Stilt, Hudsonian Godwit, Laughing Gull, and Western Meadowlark. Other notables include American White Pelican, Common Moorhen, 24 species of shorebirds, 5 species of terns, and all 36 species of regularly occurring warblers.

Compilers are requested to submit the following information: area covered, unless recently published (examples - Lake and Obion Counties or 30 mile radius from Nashville courthouse), weather summary, number of observers and parties, party hours, and details for unusual species. The inclusion of this data with the counts will make possible more accurate and meaningful comparisons.

As is customary, the counts are tabulated as they occur from west to east across the state.

INFORMATION ON THE COUNTS

MEMPHIS — 1 May; overcast; temp. 68-75°F; wind NW, 15-35 mph; Meeman-Shelby Forest S.P. in AM; Ben B. Coffey, Jr. (compiler — 672 N. Belvedere, Memphis 38107); group leaders: William Bean, Lula Coffey, Helen Dinkelspiel, Rob Peeples, and Martha Waldron; PM coverage — Penal Farm, south along Miss. River to Robco Lake, and Ensley Bottoms by Jeff Wilson. The Black-necked Stilt was seen in the area where a pair nested last year.

REELFOOT LAKE — 6-8 May; Lake and Obion Counties; Ben B. Coffey, Jr. (compiler); trip leaders: James Ferguson, Bill and Rob Peeples, and David Pitts; also separately or with small groups: Helen Dinkelspiel, Rick Knight (part 5 May also, boat 6 May), James Tanner, and Jeff Wilson (canoe 7 May). This count was in conjunction with the Spring Meeting of TOS. The Hooded Mergansers were a flock of young. Most shorebirds were in Lake County. Sanderlings 5 May only; Golden and Black-bellied Plovers, Ruddy Turnstone 7 May only; White-rumped Sandpiper and Hudsonian Godwits 8 May only (J.W., George Payne, Claude

Brown). Connecticut Warbler in Obion County 7 May (no details). Western Meadowlark 5-8 May (R.K., m.ob.); another 8 May (G.P.), 5 miles south of first (both identified by song).

LAWRENCEBURG — 30 April-1 May; Lawrence County; Sat. - 0540 to 2030, overcast, rain began 1600, temp. 64-81°F; Sun. - 0800 to 2030, mostly cloudy, temp. 60-75°F; wind light and variable both days; 12 observers in 5 parties — Andy Augustin, David Beckman, Lloyd M. & Lloyd W. & Helen Clayton, Bill & Jane Egly, Lee Mann, Royce Neidert, Damien J. Simbeck (compiler — Rt. 2, Box 3A, Loretto 38469), Don K. Simbeck, Wylie Willis. Excellent details submitted for unusual species.

CLARKSVILLE — 7-8 May; Montgomery County; average temp. 65°F; wind 20 mph; 6 observers — Joe Allen, Annie Heilman, Bill Hudson, Nancy Hughes, John Quick (compiler — Rt. 1, Box 114B, Cunningham 37052), Ellen Walker.

COLUMBIA — 30 April; overcast; average temp. 60°F; windy; 15 observers — George Mayfield (compiler — 999 Sunshine Dr., Columbia 38401). Also reported: *Empidonax* sp.-1.

NASHVILLE — 30 April-1 May; 30 mile radius from Nashville courthouse; cloudy to heavy rain on 30 April; clearing, windy on 1 May; 69 observers — Jan & David Alexander, Mildred Ansley, John Bates, Sue Bell, Michael Bierly, Polly Clark, Jean Cobb, Bonnie Copeland, Dot & Paul Crawford, Annella Creech, Jerry Drewrey, Milbrey Dugger, Evelyn & John Ellis, Adele Elom, Bob English, Charles Farrell, Dick Farver, Martha Fenker, Clara Fentress, John & Karen Filley, Lucy Finch, Ray Fleischer, Ann Fort, Ann Foster, Katherine Goodpasture, Mary Ann & Tom Guschke, Bessie Hagan, Tom Harston, Ann Houk, Louise Jackson, Ed Jolly, Carol Knauth, Hazel & Lee Kramer, Pete Lefferts, Gahlen & Sarah Lenhert, Adiene Lyon, Margaret Mann, Jane Maynard, Tom McCall, Rocky Milburn, Polly Miller, Anne Nichols, Marge & Oscar Patrick, Audrey & Don Perry, Mary Porter, Virginia Price, Sharon & Steve Rannels (compiler — 1900 Rosewood Ave., A-9, Nashville 37212), Larry Raye, Betty Richards, Jim Snapper, Helen Sterling, Carol Stewart, Ellen Stringer, Ann Tarbell, Lawrence Trabue, Evelyn Tretter, Kenneth & Sara Walkup, Virginia Workman. Also reported: peep sp. - 2, *Empidonax* sp. - 3.

MURFREESBORO — 30 April-1 May; Rutherford County; mostly cloudy both days; temp. 65-70°F; 16 observers — Lou Erwin, C.E. Greever, Edith Haynes, Anne Hettish (compiler — 1018 Lawndale Dr., Murfreesboro 37130), Richard Hunter, Wilma J. Hunter, Wren Jones, Jenny Justice, Larry McFarlin, Gene & Ruth Odom, John Patten, Ernest Smith, Alberta Spence, Frances Vaughan, Terry Witt.

LEBANON — 30 April-1 May; Wilson County; Sat. - overcast, Sun. - clearing; temp. 60-73°F; 10 observers — Earline C. & Vernon C. Berry, Fred Detlefsen, Tony Halterlein, M.R. McMillan, Ruth V. McMillan (compiler — Rt. 2, Box 141, Lascassas 37085), Ray Pope, Jeff Reed, Billy See, Grace Speck.

HIGHLAND RIM — 29-30 April; partly cloudy. No other details submitted.

CHATTANOOGA — 30 April-1 May; 14 observers — Dale Bloom, Katherine Boyles, Ken & Lil Dubke, Paul Harris, Pam Hinckley, Frank Hixson, Daniel Jacobson, Starr Klein, Johnny Parks, Peter Robinson, Robin Rudd, Jo

1983 SPRING FIELD DAYS

	Memp	Reel	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Common Loon	1	--	--	--	--	24	--	1	--	1	--	--	8
Pied-billed Grebe	1	3	--	--	4	4	2	--	1	1	--	--	1
Amer. White Pelican	--	25	--	--	--	--	--	--	--	--	--	--	--
Double-cr. Cormorant	--	4	--	--	--	32	--	11	--	2	1	--	--
American Bittern	2	1	--	--	--	2	--	--	--	1	--	--	--
Least Bittern	--	1	--	--	--	2	--	--	--	1	--	--	--
Great Blue Heron	--	120	--	--	1	5	--	2	--	7	2	3	3
Great Egret	--	36	--	--	--	--	--	--	--	1	--	--	--
Snowy Egret	--	6	--	--	--	--	--	--	--	--	--	--	--
Little Blue Heron	1	41	--	--	--	1	1	--	--	--	--	--	--
Cattle Egret	20	78	--	--	--	1	1	--	--	--	--	--	--
Green-backed Heron	6	3	6	--	3	38	12	11	1	9	15	10	18
Black-cr. Night-Heron	--	1	--	--	2	172	--	7	--	--	10	--	--
Yellow-cr. Night-Heron	12	12	--	--	2	2	1	--	--	4	--	--	--
Canada Goose	2	2	6	--	3	228	41	144	3	48	11	30	4
Wood Duck	14	54	--	--	4	36	6	9	--	24	27	28	34
Amer. Black Duck	--	2	--	--	--	--	--	--	--	--	5	6	--
Mallard	21	23	6	2	4	42	2	7	2	14	3	19	34
Blue-winged Teal	43	30	--	--	12	56	--	16	15	23	14	5	15
Northern Shoveler	10	3	--	--	--	--	--	--	--	--	--	--	--
Gadwall	--	3	--	--	--	1	--	--	--	4	1	--	--
Greater Scaup	--	--	--	--	--	--	--	--	--	3	--	--	--
Lesser Scaup	--	8	--	--	--	--	--	--	--	--	1	--	--
Bufflehead	--	--	--	--	--	1	--	--	--	--	--	--	21
Hooded Merganser	--	8	--	--	--	--	--	1	--	--	--	--	--
Common Merganser	--	--	--	--	--	4	--	--	--	3	--	--	4
Red-breasted Merganser	--	--	--	--	--	3	--	--	--	3	--	--	4
Ruddy Duck	5	5	--	--	--	--	--	--	--	--	--	--	--
Black Vulture	1	12	2	--	5	106	16	76	--	1	3	2	--
Turkey Vulture	--	14	15	4	23	70	8	82	8	48	21	10	27
Osprey	2	4	1	--	1	2	--	1	--	4	2	2	5
Mississippi Kite	7	9	--	--	--	--	--	--	--	--	--	--	--
Bald Eagle	--	--	--	--	--	--	--	--	--	--	--	--	1
Northern Harrier	--	--	--	--	1	3	--	--	--	--	1	--	--
Sharp-whinned Hawk	--	1	--	--	--	3	--	1	--	2	--	2	1
Cooper's Hawk	--	--	1	--	1	1	--	2	--	1	1	--	2
Red-shouldered Hawk	1	8	--	--	2	9	1	1	--	9	--	--	--
Broad-winged Hawk	4	2	3	1	4	9	2	--	--	21	6	--	12
Red-tailed Hawk	3	7	6	2	8	29	11	8	--	6	8	4	2
American Kestrel	--	4	5	1	7	26	25	17	2	1	5	1	9
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	2	--	3
Wild Turkey	6	7	--	--	2	--	--	--	--	--	--	--	1
Northern Bobwhite	15	8	26	2	45	124	28	21	10	13	33	10	14
Black Rail	--	--	--	--	--	--	--	--	--	--	1	--	--
Virginia Rail	--	--	--	--	2	2	--	--	--	1	--	--	--
Sora	4	2	1	--	15	11	--	--	--	1	3	--	3
Common Moorhen	--	3	--	--	--	--	--	--	--	--	--	--	--
American Coot	41	9	--	--	4	10	5	6	--	210	1	3	2
Black-bellied Plover	--	2	--	--	--	--	--	--	--	--	--	--	--
Lesser Golden Plover	--	39	--	--	--	1	--	--	--	--	--	--	--
Semipalmated Plover	2	55	--	--	2	10	--	--	--	15	--	--	4
Killdeer	25	55	8	2	10	49	19	12	9	16	75	15	35
Black-necked Stilt	1	--	--	--	--	--	--	--	--	--	--	--	--
Greater Yellowlegs	4	22	6	--	--	3	--	--	4	3	1	--	2
Lesser Yellowlegs	36	80	4	--	--	10	--	2	--	2	2	--	8
Solitary Sandpiper	18	22	14	--	10	16	13	24	4	6	18	6	72
Spotted Sandpiper	4	16	4	2	9	35	7	6	1	5	22	27	32
Upland Sandpiper	--	1	--	--	--	--	--	--	--	--	--	--	--
Hudsonian Godwit	--	2	--	--	--	--	--	--	--	--	--	--	--
Ruddy Turnstone	--	1	--	--	--	--	--	--	--	--	--	--	--
Sanderling	--	2	--	--	--	--	--	--	--	--	--	--	--
Semipalmated Sandpiper	8	73	--	--	--	--	--	8	--	1	1	--	--
Western Sandpiper	2	--	--	--	--	1	--	--	--	1	--	--	--
Least Sandpiper	47	99	--	--	17	21	--	--	3	25	3	--	2
White-rumped Sandpiper	7	7	--	--	--	3	--	--	--	1	--	--	--

	Memp	Reel	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Pectoral Sandpiper	36	337	--	--	13	1	--	--	6	2	--	--	3
Dunlin	1	--	--	--	--	1	--	--	--	--	--	--	--
Stilt Sandpiper	4	3	--	--	--	--	--	--	--	--	--	--	--
Short-billed Dowitcher	16	3	--	--	--	--	--	1	--	--	--	--	--
Common Snipe	2	2	--	--	--	11	--	1	--	1	22	--	29
American Woodcock	--	--	1	--	--	1	--	--	--	1	2	--	--
Wilson's Phalarope	5	--	--	--	--	--	--	--	--	--	--	--	--
Laughing Gull	--	--	--	--	--	--	--	--	--	--	3	--	--
Ring-billed Gull	1	37	--	--	--	42	--	16	--	7	7	--	20
Herring Gull	--	--	--	--	--	--	--	6	--	--	--	--	1
Caspian Tern	--	--	--	--	--	5	--	--	--	--	--	--	--
Common Tern	--	4	--	--	--	10	4	--	--	--	--	--	--
Forster's Tern	--	5	--	--	--	2	--	9	--	--	--	--	--
Least Tern	--	4	--	--	--	--	--	--	--	--	--	--	--
Black Tern	--	5	--	--	--	--	--	--	--	--	--	--	--
Rock Dove	1	1	8	11	13	85	40	16	--	35	141	46	120
Mourning Dove	37	73	85	12	61	311	96	90	46	60	358	66	139
Black-billed Cuckoo	1	7	--	--	--	1	--	--	--	--	--	--	--
Yellow-billed Cuckoo	--	15	1	3	4	11	4	--	1	4	6	--	--
Common Barn Owl	--	--	--	2	--	--	--	2	--	1	--	1	--
Eastern Screech-Owl	--	--	4	--	1	2	1	6	--	1	9	2	6
Great Horned Owl	--	1	--	--	1	3	--	4	1	1	--	--	2
Barred Owl	3	8	1	2	11	12	--	12	--	5	1	--	--
Common Nighthawk	--	24	3	6	1	9	6	6	2	13	11	3	8
Chuck-wills-widow	--	--	6	--	6	3	4	4	1	1	16	2	3
Whip-poor-will	--	--	1	2	7	5	--	7	--	1	2	1	4
Chimney Swift	45	41	56	27	43	644	110	209	26	88	282	192	320
Ruby-thr. Hummingbird	38	23	3	4	1	55	14	6	1	13	13	1	9
Belted Kingfisher	2	7	5	1	7	27	6	5	--	7	28	1	21
Red-headed Woodpecker	14	41	11	1	7	7	3	2	5	11	1	--	4
Red-bellied Woodpecker	19	23	22	7	24	132	20	19	13	36	47	18	29
Yellow-bel. Sapsucker	--	--	--	--	1	6	2	1	--	1	--	--	1
Downy Woodpecker	20	15	11	6	38	124	22	10	11	20	30	8	40
Hairy Woodpecker	3	5	5	1	6	15	5	5	1	1	5	1	3
Northern Flicker	10	12	4	2	7	57	18	2	14	13	47	19	45
Pileated Woodpecker	6	15	11	1	16	42	2	6	2	13	26	7	21
Olive-sided Flycatcher	--	1	--	--	--	--	--	--	--	--	--	--	--
Eastern Wood-Pewee	20	25	6	3	18	53	6	1	7	15	6	1	5
Acadian Flycatcher	20	22	4	3	10	18	1	1	1	6	1	--	4
Willow Flycatcher	--	--	--	--	--	2	--	--	--	--	--	--	--
Least Flycatcher	2	2	--	1	1	--	--	--	--	--	--	--	--
Eastern Phoebe	1	4	7	5	18	52	8	19	2	7	21	3	45
Great Cr. Flycatcher	18	33	14	6	13	54	10	7	2	7	14	7	4
Eastern Kingbird	15	34	14	3	17	84	29	40	16	13	29	4	33
Horned Lark	6	106	1	--	5	--	--	--	--	--	2	1	--
Purple Martin	25	30	29	11	57	165	108	32	23	35	128	30	102
Tree Swallow	202	92	1	4	5	100	--	1	2	1	25	6	26
N. Rough-winged Swallow	8	24	24	8	51	298	19	22	2	29	45	17	79
Bank Swallow	1	32	1	--	2	1	--	6	--	--	--	--	4
Cliff Swallow	---	3	2	3	--	651	--	--	--	72	--	--	--
Barn Swallow	104	102	59	5	130	328	58	117	27	74	191	77	256
Blue Jay	28	24	73	21	73	340	156	177	102	138	378	118	306
American Crow	22	49	51	9	58	378	225	80	31	55	284	137	245
Fish Crow	6	2	--	--	--	--	--	--	--	--	--	--	--
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	6
Carolina Chickadee	46	55	26	8	45	276	46	81	17	53	188	52	66
Tufted Titmouse	68	61	67	18	50	252	34	57	33	57	126	40	72
Red-breasted Nuthatch	--	--	--	--	1	2	--	--	--	1	2	--	--
White-br. Nuthatch	1	10	3	4	7	63	--	2	10	5	11	2	10
Brown-headed Nuthatch	--	--	--	--	--	--	--	--	--	1	--	--	--
Brown Creeper	--	--	--	--	1	1	--	--	--	--	--	--	--
Carolina Wren	77	45	22	8	61	197	22	7	2	74	166	31	68
Bewick's Wren	--	--	--	--	2	2	10	9	--	--	--	---	--
House Wren	--	--	--	4	3	20	3	2	3	--	20	9	14
Winter Wren	--	--	--	--	---	--	--	--	--	--	2	--	3
Sedge Wren	1	--	--	--	--	6	--	--	--	--	---	--	--
Marsh Wren	--	--	--	--	--	1	--	--	--	1	2	---	2
Golden-crowned Kinglet	--	--	--	--	--	3	1	--	3	--	--	---	2
Ruby-crowned Kinglet	3	1	--	--	10	25	3	2	--	4	39	1	7
Blue-g. Gnatcatcher	85	121	17	16	97	168	8	25	9	79	78	9	42

	Memp	Reel	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Eastern Bluebird	5	10	40	7	38	99	40	142	21	32	62	21	54
Veery	5	8	2	3	9	11	9	2	2	1	7	5	2
Gray-cheeked Thrush	7	31	1	--	2	13	3	1	2	1	5	--	--
Swainson's Thrush	36	25	1	8	10	97	13	2	1	7	35	1	--
Hermit Thrush	4	--	--	--	1	1	--	--	--	--	2	--	--
Wood Thrush	28	7	14	8	23	69	8	2	2	20	68	9	31
American Robin	57	31	42	33	59	493	350	132	68	55	539	152	469
Gray Catbird	10	17	31	5	23	108	9	18	12	10	41	14	27
Northern Mockingbird	23	17	51	12	28	159	176	48	44	33	204	43	124
Brown Thrasher	4	13	42	4	32	126	56	62	17	14	63	17	37
Water Pipit	--	--	--	--	--	--	--	--	--	1	--	--	--
Cedar Waxwing	--	75	50	75	--	12	100	2	18	1	22	1	4
Loggerhead Shrike	4	13	10	1	1	17	4	12	2	2	1	--	2
European Starling	70	250	37	32	83	594	900	598	23	89	1016	350	936
White-eyed Vireo	46	33	20	9	49	156	18	26	4	20	41	12	20
Solitary Vireo	--	--	--	1	1	1	--	1	--	1	1	--	22
Yellow-throated Vireo	14	8	--	--	9	18	2	1	3	16	11	1	6
Warbling Vireo	2	10	--	--	2	21	--	3	--	--	--	--	2
Philadelphia Vireo	1	7	--	1	--	7	--	1	--	--	--	--	--
Red-eyed Vireo	39	28	9	5	29	95	12	16	10	107	177	5	45
Blue-winged Warbler	7	1	3	--	33	71	5	6	2	2	6	--	1
Golden-winged Warbler	6	3	--	--	1	10	--	2	2	1	4	1	2
Tennessee Warbler	67	82	6	10	63	143	9	22	6	16	41	--	--
Orange-crowned Warbler	--	1	--	--	--	5	--	--	--	3	1	--	--
Nashville Warbler	5	6	--	1	16	21	4	3	--	2	17	--	1
Northern Parula	50	29	2	--	9	32	--	--	2	1	9	2	21
Yellow Warbler	10	11	3	1	43	127	17	28	3	18	23	12	44
Chestnut-sided Warbler	10	12	--	3	5	27	5	2	1	8	21	--	12
Magnolia Warbler	7	19	4	7	2	17	12	1	--	5	14	1	--
Cape May Warbler	--	9	--	1	1	9	3	1	12	12	11	16	2
Black-thr. Blue Warbler	--	--	--	--	--	1	--	1	--	2	9	--	15
Yellow-rumped Warbler	24	22	37	1	65	188	25	78	21	68	219	74	132
Black-thr. Green Warbler	9	9	--	1	21	33	2	13	1	7	52	--	19
Blackburnian Warbler	3	7	1	2	13	16	2	2	--	3	18	2	7
Yellow-thr. Warbler	1	12	--	1	3	19	5	1	--	30	1	--	10
Pine Warbler	--	--	1	1	1	3	22	1	--	3	6	--	4
Prairie Warbler	--	3	20	3	19	70	4	30	1	6	15	--	3
Palm Warbler	8	20	27	1	74	290	46	90	25	51	18	14	11
Bay-breasted Warbler	4	8	4	8	15	23	2	5	--	7	14	--	--
Blackpoll Warbler	6	58	7	7	40	87	16	12	7	57	29	6	3
Cerulean Warbler	21	17	1	--	26	11	--	5	--	3	8	--	1
Black & white Warbler	12	5	1	7	25	49	22	6	1	5	44	6	24
American Redstart	34	39	4	4	13	17	4	1	1	53	8	--	--
Prothonotary Warbler	33	88	8	3	18	53	8	21	--	4	6	2	1
Worm-eating Warbler	2	1	--	--	20	20	2	1	--	1	9	--	5
Swainson's Warbler	5	5	--	--	2	--	--	1	--	1	1	--	1
Ovenbird	14	11	1	1	26	11	3	--	--	1	31	--	59
Northern Waterthrush	5	19	1	--	3	20	3	3	--	1	--	--	2
Louisiana Waterthrush	7	3	5	2	11	19	7	3	1	10	7	--	5
Kentucky Warbler	39	12	11	5	26	44	--	2	2	14	12	1	3
Connecticut Warbler	--	1	--	--	--	--	--	1	--	--	--	--	--
Mourning Warbler	2	5	--	--	--	1	--	1	--	--	--	--	--
Common Yellowthroat	24	65	20	3	39	222	7	47	7	30	94	15	27
Hooded Warbler	9	13	--	--	8	22	1	--	--	7	30	--	31
Wilson's Warbler	--	9	--	--	--	--	--	1	--	--	2	--	1
Canada Warbler	--	3	--	--	1	2	--	2	--	2	1	--	--
Yellow-breasted Chat	2	13	17	5	20	63	5	10	2	19	25	9	7
Summer Tanager	24	19	8	4	26	80	4	14	3	8	10	4	--
Scarlet Tanager	12	12	5	1	30	55	12	11	11	27	44	4	32
Northern Cardinal	86	130	122	39	72	498	350	208	64	136	406	69	211
Rose-breasted Grosbeak	21	34	15	11	42	303	29	13	9	32	177	26	52
Blue Grosbeak	6	10	10	1	2	21	2	4	13	4	7	2	5
Indigo Bunting	224	480	100	11	69	407	76	75	59	40	173	53	38
Painted Bunting	2	--	--	--	--	--	--	--	--	--	--	--	--
Dickcissel	16	123	1	14	16	6	--	--	--	--	--	--	--
Rufous-sided Towhee	15	7	51	23	75	270	47	62	20	47	194	31	95
Chipping Sparrow	3	8	9	4	22	89	63	31	18	16	31	21	40
Field Sparrow	1	12	16	2	85	296	52	91	12	37	176	34	38
Vesper Sparrow	--	--	--	--	--	1	--	--	--	1	--	--	--
Savannah Sparrow	8	14	1	--	--	13	--	--	1	14	33	--	40

	Memp	Reel	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Grasshopper Sparrow	--	--	--	--	--	4	--	2	--	5	8	1	6
Song Sparrow	--	2	5	1	2	39	5	4	--	65	289	52	310
Lincoln's Sparrow	1	8	--	--	1	1	--	--	--	--	--	--	--
Swamp Sparrow	8	2	2	--	9	46	1	2	--	6	16	--	20
White-thr. Sparrow	137	15	37	9	94	320	80	52	24	58	317	64	107
White-cr. Sparrow	18	24	--	1	26	73	41	17	8	1	8	24	8
Dark-eyed Junco	--	2	1	--	2	3	2	--	--	--	1	--	17
Bobolink	11	325	29	6	--	122	100	--	--	12	25	--	4
Red-winged Blackbird	186	C	85	25	61	802	300	202	98	104	454	44	251
Eastern Meadowlark	61	55	58	13	58	439	290	243	57	69	254	93	169
Western Meadowlark	--	2	--	--	--	--	--	--	--	--	--	--	--
Rusty Blackbird	--	--	--	--	--	--	--	--	--	2	--	--	--
Common Grackle	66	C	88	12	175	729	1500	308	37	166	725	306	1330
Brown-headed Cowbird	86	310	44	20	57	315	70	95	36	26	149	19	81
Orchard Oriole	33	26	9	--	15	75	18	10	8	14	8	6	9
Northern Oriole	29	54	1	4	9	58	10	8	4	6	14	3	15
Purple Finch	1	1	--	6	2	1	--	5	--	1	1	7	28
House Finch	--	--	--	--	--	1	--	--	--	1	6	2	6
American Goldfinch	395	131	89	3	202	1066	31	74	190	117	116	11	361
House Sparrow	8	C	66	19	48	134	200	71	111	51	123	62	183
Total Species	148	180	114	103	146	180	118	144	98	163	152	101	145

C = Common

Stone, Randy C. Stringer (compiler — 758 Emory Dr., Chattanooga 37415). Also reported: tern sp. - 1, *Empidonax* sp. - 2. Caribbean Coot deleted; this bird is apparently injured and has remained at the same site since being found in 1981.

KNOXVILLE — 1 May; partly cloudy to overcast; temp. 64-84°F; 36 observers — Frank Bills, Sylvia Britt, Winnifred Brown, Jim & Betty Reid Campbell, Howard Chitwood, Marcia Davis, Robert Floyd, Robert Ford, Katherine Foster, Brice Gilmer, Christine Hamilton, Paul Hartigan (compiler — 200 Hermitage Rd., Knoxville 37920), Audrey & Ron Hoff, J.C. Howell, Susan Hoyle, Hal Hubbs, Jon A. Koella, Beth Lacy, Kenneth McLean, Chester Massey, Charles P. Nicholson, J.B. Owen, Holly Overton, Truett Patterson, Mark Reeves, Kenneth & Mabel Sanders, Boyd Sharp, Nancy Shepard, Johneta & Louis Smith, James & Nancy Tanner, Ralph Zanglein. Black Rail and Laughing Gulls seen by James Tanner. Also reported: *Empidonax* sp. - 1.

GREENEVILLE — 1 May; sunny; temp. 66-83°F; wind 13-18 mph; 13 observers — Ben & Phine Britton, Marjorie Earnest, King & Margaret Gaut, Richard & Willie Ruth Nevius, Gary & Velma Presley, Doug Ratledge, Helen & Royal Spees (compiler — Box 356, Greeneville 37743), Virginia Williams.

ELIZABETHTON — 30 April; mostly within 25 mile radius of Elizabethton; 0400 to 2330; partly cloudy to cloudy; temp. 61-79°F; patches of snow at high elevations of Roan Mountain; 25 observers — Herb Armentrout, Cat Bireley, Lynn Chalmers, Martha Dillenbeck, Glen Eller (compiler — Rt. 3, Grandview Terrace, Elizabethton 37643), Becky Ephraim, Harry Farthing, Elizabeth Funkhouser, Sally Goodin, Ann Harker, Dick & Mildred Hegler, Lois Herndon, Cindy Jackson, Barney Keffer, Rick Knight, Joy Kyle, Richard Lewis, Dick & Theresa Lura, Lynn Miller, Glenn Swofford, Gary Wallace, Barbara Walsh, Jane Whitehead. In addition, one Chuckar was seen on Holston Mountain. Apparently numerous attempts have been made to establish this species in that area, perhaps also in southwest Virginia. However, they are not sufficiently established to include in a list of wild birds.

ROUND TABLE NOTES

CLIFF SWALLOWS NESTING IN BARNS IN UPPER EAST TENNESSEE — The Cliff Swallow (*Hirundo pyrrhonota*) is a localized nesting species in upper East Tennessee. East of Knox County, active colonies are known from the Cherokee Lake area (Wallace 1970), Douglas Lake (Koella 1980), Boone Lake (Alsop 1981), and Washington County (Dubke and Dubke 1978). At the first three locations the nests are on the underside of bridges over reservoirs; however, at the Washington County site the nests are inside barns.

Bent (1942:469) states that "When the Cliff Swallows resort to buildings they usually plaster their nests under the protecting eaves on the outside of the structures but not infrequently they may enter the building." Herndon (1947) reported Cliff Swallow nests "plastered to the joists inside the hall-way" of two barns along the Watauga River east of Elizabethton in Carter County. This site has not been used in many years. Range and Dillenbeck reported "2-8 nesting in barn" at Austin Springs in Washington County (Williams 1972). Range (pers. comm.) informed me that there were seven nests, some appearing old and unused, just inside the barn's hallway entrance.

On 28 June 1978, I discovered four active Cliff Swallow nests inside a barn in Washington County. The location is approximately 2.5 km northwest of Johnson City, not near Boone Lake as recorded by Dubke and Dubke (1981). Subsequent years produced the following records: 1979 - ten active nests, 1980 - not checked, 1981 - eleven active nests in the same barn and one nest (status uncertain) in a nearby barn, 1982 - six active nests in the first barn, the second barn was not checked, 1983 - no active nests in these two barns, but five active nests in another barn about 1 km away. All nests were attached to joists in an open hallway, and were within 3 m of the hallway entrance. Cliff and Barn Swallow (*Hirundo rustica*) nests were often found close together on the same joist.

Most Cliff Swallow nest sites in Tennessee are directly over, or otherwise near, large bodies of water (Alsop 1981). This site, however, is in open farm country, mostly hay and pasture fields, and is 16 km from Boone Lake, the nearest large body of water. Knob Creek, which drains this area, is about 1 m wide and 0.3 m deep and runs very near these barns.

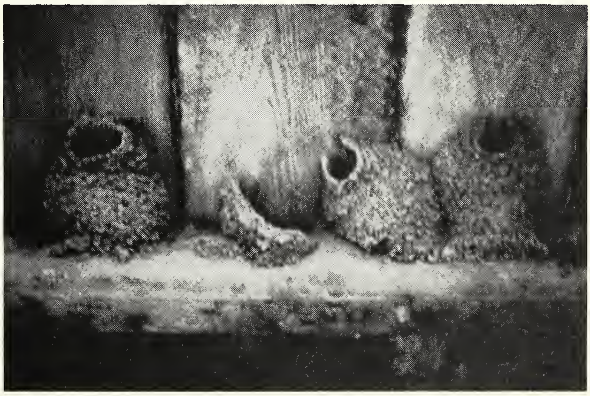

FIGURE 1. Cliff Swallow nests inside barn, Washington County, Tennessee. Photograph by Richard L. Knight.

My thanks to Pete Range for supplying additional information from his notes. Also, I thank Charles Nicholson and an anonymous reviewer for suggestions that improved this note.

LITERATURE CITED

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FLORIDA-MARKED TURKEY VULTURE SIGHTED IN EAST TENNESSEE — On 11 April 1981, while Audrey R. Hoff and I were hawk-watching from the Look Rock Tower on Chilhowee Mountain, Blount County, Tennessee, we observed a Turkey Vulture (*Cathartes aura*) with a patagial marker attached to its left forewing. Though we kept this individual in sight for two to three minutes while it flew near the tower (within 50 meters), we were unable to read the black coding on the marker; however, we did note its greenish coloration, roundish or oval shape, and approximate size (7-10 centimeters in diameter). As it turned out, these characteristics were enough for the Bird Banding Laboratory (BBL) to determine that this bird had been marked by S.P. Gaby, who later informed us (pers. comm.) that this individual was one of a large number marked in Dade County, Florida, sometime between December, 1977, and May, 1980.

Though Turkey Vultures migrate extensively through Tennessee during spring and fall, specific documentation of the movement of individual birds is exceedingly rare. In fact, a computer listing provided by the BBL of 162 recoveries of Turkey Vultures revealed that only one recovery in Tennessee of a vulture banded or marked outside the state had occurred as of August, 1983; this recovery involved a vulture banded in Ohio on 19 May 1937 and found in Tennessee on 11 November 1938. Furthermore, no Turkey Vultures banded in Tennessee have ever been recovered out of the state. P.A. Stewart (Bird-Banding 48: 122-124, 1977) analyzed 131 Turkey Vulture recoveries submitted as of October, 1976 and reached these same conclusions.

Consequently, the observation of a patagially-marked Turkey Vulture in East Tennessee is a noteworthy event, especially since its origin and approximate marking date could be determined. This conspicuously marked vulture was not seen again on 8 other days of hawk-watching at Look Rock during the spring of 1981, suggesting that the bird may have been a migrant moving to breeding grounds farther north. It had traveled about 1500 km from Dade County, Florida, to Blount County, Tennessee, and had perhaps done so several times since it was marked.

Tennessee field observers are urged to scrutinize all vultures for patagial markers, which are usually coded with a number-letter sequence. As the present sighting reveals, however, this alpha-numeric code can be quite difficult to read; therefore, the color, shape, and size of the marker should be carefully noted, as well as the color of the coding. Finally, the placement of the marker on either the right or left wing should be noted, though occasionally markers will be affixed to each wing.

I wish to thank the Bird Banding Laboratory staff for searching its records to determine the bander of this bird and for providing a computer listing of all Turkey Vulture recoveries. I also thank S.P. Gaby for offering data about the origin and approximate marking date of this vulture. Finally, I am indebted to Audrey R. Hoff, Jerome Jackson, and Morris Williams for comments made on early versions of this note.

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BOOK REVIEW

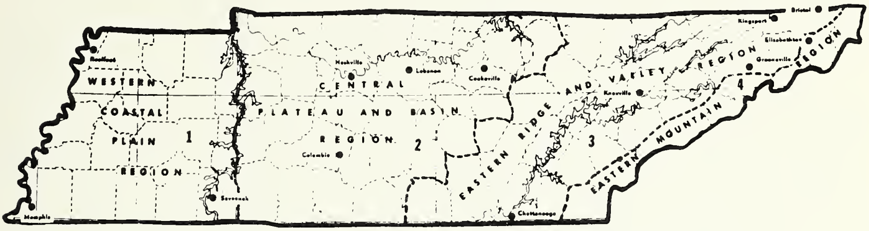
THE HUMMINGBIRDS OF NORTH AMERICA, by Paul A. Johnsgard. 1983. Smithsonian Institution Press, Washington, D.C. 303 pp + 16 color plates by James McClelland. Hummingbirds (family Trochilidae) are among the most spectacular of exclusively New World birds, and since the 1500's have drawn much attention from naturalists. Hummingbirds have many claims to fame — small size, the ability to fly backward and hover, an unusually high metabolism with proportionally large heart and breast muscles, the ability to enter torpor, and the relatively largest brain size of all birds. Their plumage is spectacular in the diversity of colors, and they have a variety of mating systems with many interesting displays. There have been several previous monographs about hummingbirds — notably Gould's in 1849-1861, Elliot's in 1878, Ridgeway's in 1890, and Greenewalt's recent classic.

Johnsgard's book is made up of several different parts. The first part of the book, comprising about 20 percent of the text, is a review of hummingbird biology. Chapters in this section deal with evolution, taxonomy, anatomy and physiology, ecology, behavior, and reproductive biology of hummingbirds. The sections are quite readable, yet present many facts and appear to be an adequate review of the current literature. A few anecdotes, repeated from the literature, stretch credibility. The second part of the book, about two-thirds of the text, is made up of accounts of the 11 genera and 23 species of hummingbirds recorded in North America. All hummingbirds regularly occurring in North America, as well as vagrants, are covered. Accounts of the vagrants seem unnecessary, but do help show the diversity of the family. The species accounts, of up to 8 pages in length, follow a similar format and include synonyms, a written range description and a range map, a list of North American subspecies, measurements and weights, plumage descriptions and identifying characteristics, habitats, movements, foraging behavior and floral ecology, breeding biology, and evolutionary and ecological relationships. Sketches show head and tail patterns. Gaps in the available information are pointed out.

Other parts of the book are a glossary, a lengthy bibliography, and appendices giving the origins of Latin hummingbird names, identification keys, a synopsis of all species of hummingbirds giving range, status, and references to illustrations, and a list of hummingbird-adapted plants in North America. The plates illustrate 22 species, one or two species to a plate, with the birds perched on or flying about flowering plants. They are nicely done. The numbering of the plates, however is confusing, and I wish the names of the birds had been printed on the plates — there appears to be adequate room to do this without undue distraction. Another criticism is the wasted space — left margins in the species accounts are over 2 inches wide in this medium-sized book.

A few minor criticisms aside, this is a well written book and contains more substantive text than several of Johnsgard's earlier works. I recommend it to anyone interested in these fascinating birds. — CHARLES P. NICHOLSON

THE SEASON


Reelfoot
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Kingsport
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Greeneville
WESTERN COASTAL PLAIN REGION
1
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
3
EASTERN MOUNTAIN REGION
4

SPRING MIGRATION: 1 MARCH - 30 MAY 1983

The spring migration began early with very warm temperatures in late February and early March. Then it turned cold, and below average temperatures persisted until late May. A few inches of snow fell 18 April in East Tennessee, and this was followed by record low temperatures. All regional compilers commented that migration was late during most of April and May.

Notable observations this period included a Brown Pelican at Memphis for the third state record; large numbers of shorebirds in Shelby and Lake Counties; a Eurasian Wigeon at Cross Creeks National Wildlife Refuge; and Franklin's Gulls near Nashville. North-bound Sandhill Cranes were reported from the southern end of the Eastern Ridge and Valley Region, from the Cumberland Plateau, and from the Eastern Highland Rim near Cookeville and at Byrdstown. The total of 2200 birds, which may include some flocks counted more than once, is perhaps the highest spring count ever in Tennessee, and represents about 14 percent of the entire Greater Sandhill Crane population. — Charles P. Nicholson.

WESTERN COASTAL PLAIN REGION — Migration was late and sparse except for the period 29 April through 9 May. The number of Tennessee Warblers, normally very common, was lower than in previous years, and Swainson's Thrushes were down by fifty percent compared to recent years. In contrast, Gray-cheeked Thrushes were more noticeable, and Indigo Buntings were more numerous than usual. Rainstorms and subsequent flooding in May adversely affected the nesting success of many early attempts.

Loon-Moorhen: Common Loon: 23 Apr (1) HCY, south of HNWR (MTOS); 1 May (1) Robco Lake (BBC, LCC, WBF, WLW). Pied-billed Grebe: 4 Apr (nest), 12-14 Apr (8 eggs), 9 May (8 y) BAR (DAD, JRW). White Pelican: 6 May (22) REL (DAD, JF). BROWN PELICAN: 12 Apr (1) MEM (JLS), second area record, third state record. Yellow-crowned Night-Heron: 16 nests at McCorkle site, MEM (BBC, LCC). Least Bittern: 23 May (2) (JRW), 24 May (1) (CHB, DAD, MGW), 27 May (3) (JRW), 30 May (1) (CGD, RJM), all at ESL. American Bittern: 21 Apr (3) ESL (CHB, DAD, JRW, MGW). Glossy Ibis: 11 May (1) ESL (DPB, DAD). Sharp-shinned Hawk: 19 Mar (1) MEM (JRW). Cooper's Hawk: 1 May (1) MEM (JLS). Osprey: 16 Apr (1) Herb Parsons Lake, Fayette Co. (JLS). Sora Rail: 16 Apr (1) ESL (MTOS), 17 Apr (7) ESL (DPB, DAD, JRW, MGW). Purple Gallinule: 7 Apr (1), 15 Apr (1), 6 May (1) MEM (JLS). Common Moorhen: 6 May (3) Burnt Woods, REL (RLK); 15 May (1) MEM (JLS); 26 May (1) ESL (JRW); 29 May (1) ESL (BBC, LCC); 31 May (1) ESL (CGD, RJM).

Plover-Tern: Semipalmated Plover: 17 Apr (5) ESL (DPB, DAD, JRW, MGW). Black-necked Stilt: 16 Apr (1) (MCTOS), 21 Apr (1) (CHB, DAD, JRW, MGW), 24 Apr (1) (DPB, SNK, JRW, MGW), 8 May (1) (KHD, LHD, RCS, JBO), 25 May (1) (CHB, DAD, MGW), all at ESL. WILLET: 17 Apr (1) ESL (DPB, DAD, JRW, MGW), fourth Shelby Co. record; 23 Apr (1) HNWR (MTOS), first for refuge and Haywood Co. Upland Sandpiper: 12 Apr (4) (HBD, SSL), 17 Apr (6) (JRW), 18 Apr (12) (CHB), all PEF. Ruddy Turnstone: 7 May (1) Eckles Towhead, LKC (JAF); 22 May (9) MRL (CGD, RJM). Sanderling: 5 May (2) MRL (RLK). Semipalmated Sandpiper: 22 May (2000) MRL (CGD, RJM). Western Sandpiper: 22 May (10) MRL (CGD, RJM). White-rumped Sandpiper: 8 May (2) ESL (KHD, LHD, JBO, RCS); 12 May (7) MLS (DAD, SNK, MGW); 22 May (20) MRL (CGD, RJM). Dunlin: 22 May (10) MRL (CGD, RJM). Stilt Sandpiper: 8 May (23) ESL (KHD, LHD, JBO, RCS); 22 May (4) MRL (CGD, RJM). Wilson's Phalarope: 16 Apr (1f, 1m) (MTOS), 17 Apr (2f, 1m) (DPB, DAD, JRW, MGW), 21 Apr (6f, 1m) (CHB, DAD, JRW, MGW), 24 Apr (7) (DPB, SNK, JRW, MGW), 8 May (4) (KHD, LHD, JBO, RCS), 10 May (2) (DPB, DAD), 11 May (2f) (CHB, HBD, SCF, NMS), all at ESL. Bonaparte's Gull: 30 May (3) President's Island, MEM (CHB, HBD, SSL). Forster's Tern: 5 May (3) ESL (RLK).

Owl-Blackbird: Burrowing Owl: 28 May (1) (Ralph Lloyd), 29 May (1) Wapanocca National Wildlife Refuge, Ark. (BBC, LCC), not found on 1 or 3 June. Yellow-bellied Flycatcher: 3 May (1) MEM (LCC). Barn Swallow: 19 May (67 nests) Delaware St. and I-55 overpass, MEM (BBC). Fish Crow: 17 Apr (2) TN 54 and Hatchie R., HYC/TIC (BBC, LCC); 5 May (2) MRL (RLK). Golden-winged Warbler: 2-3 May (1) Overton Park, MEM (BBC). Cape May Warbler: 2-3 May (1) MEM (BBC, LCC); 19 May (1) DeSoto Park, MEM (BBC). Connecticut Warbler: 16 May (1) PEF (WRP). Dickcissel: 24 Apr (1) last date seen after spending 8 weeks at feeder, MEM (JRW). Vesper Sparrow: 29 Mar (4) PEF (JRW); 2 Apr (2) ESL (DAD, JRW, MGW); 3 Apr (4) PEF (JRW); 16 Apr (1) ESL (JRW). Lincoln's Sparrow: 14 Feb - 25 Apr (1 at feeder) MEM (JRW); 12 May (1) T.O. Fuller State Park (DAD, SNK, MGW). Western Meadowlark: 5-8 May (1) Tiptonville (RLK, TOS). Brewer's Blackbird: 3 Apr (5) PEF (JRW).

Locations: ESL — Ensley Sewage Lagoons, Memphis; HYC — Haywood Co.; MEM — Memphis; MRL — Mississippi River levee area, Lake Co.; PEF — Shelby Co. Penal Farm; REL — Reelfoot Lake, Lake Co.

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CENTRAL PLATEAU AND BASIN REGION — Spring in the region began warmly, after the mild winter, and turned cool, as the freezes of April 19 and 20 indicate; additionally, the season was wet, especially in late May, as if in anticipation of the summer to come. Only one early spring arrival date (of a typically late-migrating species — White-rumped Sandpiper) was broken in the Nashville area, but several late dates of departure were established or tied in that area, including American Bittern, Purple Gallinule, Black-bellied Plover, Bobolink, and Rusty Blackbird. In the region as a whole, several other species appeared to linger, especially finches, or to arrive late, as was the case for the nightjars.

Despite weather patterns conducive to unusual sightings, rarities did not dominate the hotlines this spring. Only a few need be noted in advance. Certainly the Eurasian Wigeon discovered at Cross Creeks NWR was noteworthy, as were the American Avocets, Franklin's Gulls, and Least Tern which gathered at Gallatin in late May. Generally, however, other avian phenomena warrant attention: a noteworthy Broad-winged Hawk migration; high count of migrating Sandhill Cranes from the western Cumberland escarpment; and new nesting sites for the Song Sparrow, which continues to pioneer westward in the region.

Another matter deserving attention involves the distribution of records noted hereinafter. Of the 40 counties in this region, only 13 (Cheatham, Davidson, Humphreys, Lawrence, Lewis, Maury, Pickett, Putnam, Smith, Sumner, Stewart, Trousdale, and Williamson) are represented by one or more records below. Expanded representation of the region thus remains a high priority for the observers noted below, as well as for those distinguished by their absence.

Loon-Grouse: Common Loon: 24 Apr (7) MOP (WNJ); 22 May (2) RL (SR). Pied-billed Grebe: 3 Apr (38) MOP (OBL, AL); 29 May (1) GSP (DTC, JPC); Double-crested Cormorant: 25 Apr (3) and 30 Apr (4) GSP (DTC, JPC); 23 May (1 flying northeast) LF (SJS). American Bittern: 22-23 May (1) MC (DFV), ties Nashville area late spring date. Least Bittern: 26 May (1) and 4 Jun (1) MC (DFV). Great Egret: 16 Apr (1) Madison, DVC (LFK). Snowy Egret: 16 May (1) Barkley Wildlife Management Area, SWC (DWB). Wood Duck: all season (300-500) CCNWR (FR). Green-winged Teal: April (500 peak) CCNWR (FR). Black Duck: 13 Mar (40+) MOP (OBL). Blue-winged Teal: 10 Apr (50) MC (SR); 30 Apr (12) Green Pond, SUC (DTC, JPC). Northern Shoveler: 10 Apr (3) MC (SR). EURASIAN WIGEON: 8-20 Mar (1 male) CCNWR (DWB, *et al.*). Ring-necked Duck: 3 Mar (60+) Lewis Pond, SUC (DTC, JPC). Osprey: 15 Apr (1 flying north) and 16 Apr (1 flying north) LF (SJS, BHS); 4 May (1) Leoma (DJS, Kevin Gray); 7 May (1) St. Joseph (DJS); 29 May (2) RL (Jim Snapper). Bald Eagle: 10 Apr (1 imm) Columbia (WNJ). Northern Harrier: 27 Mar (3) and 13 Apr (1) LF (SJS, BHS). Sharp-shinned Hawk: 22 May (1 ad male banded) LF (SJS, BHS), possible breeding bird. Cooper's Hawk: 13 Mar (1) CCNWR (CGD, RJM). Broad-winged Hawk: 27 Mar (1) LF (BHS); 11 Apr (1) Basin Spring, WMC (Katherine A. Goodpasture); 16 Apr (1) Byrdstown, PIC (RCH); clear migratory movement noted at LF (BHS): 12 Apr (28), 13 Apr (33), and 21 Apr (41), the latter number representing the highest-ever one-day spring total for the Region. Peregrine Falcon: 9 May (1) Dover (DWB). RUFFED GROUSE: 25 Mar (1) LF (BHS), first Nashville area record, but difficult to determine if the bird was an escaped or released captive-bred individual (probable), a far-wandering result of the fall dispersal from the Cumberland Plateau (possible), or a member of a previously undetected indigenous population (unlikely).

Rail-Terns: Sora: 10 Apr (2) MC (SR); 24 Apr (1) and 30 Apr (1) Leoma (DJS); 30 Apr (2) Ashland City (CGD). PURPLE GALLINULE: 22 May (1) MC (DFV), new Nashville area late spring date. Sandhill Crane: 5 Mar (381+ migrating north) Barnes Hollow, PUC (RWS), very high one-day total; 23 Mar (58) Byrdstown (RCH); 24 Mar (19) I-40 at Baxter exit, PUC (CPN). Black-bellied Plover: 29 May (2) GSP (DTC, JPC), new Nashville area late spring date. Semipalmated Plover: 30 Apr (7) to 12 May (1) GSP (DTC, JPC); 11 May (4) Johntown, TRC (CPN). Greater Yellowlegs: 2 Mar (1) Duck River Unit, Tennessee National Wildlife Refuge (CGD). Lesser Yellowlegs: 6 Apr (3+) Bordeaux Landfill, DVC (CGD); 14 May (1) GSP (DTC, JPC). Spotted Sandpiper: 30 May (1) GSP (DTC, JPC); 27 May - 17 Jun (2) RL (Jane C. Maynard). Upland Sandpiper: 10 Apr (3) MC (SR, DFV). Sanderling: 11 May (1) Johntown, TRC (CPN). Semipalmated Sandpiper: 24 Apr (1) Loretto (DJS); 11 May (7) Johntown, TRC (CPN); 12 May (49), 29 May

(103), and 30 May (15) GSP first, peak, and last dates (DTC, JPC). Western Sandpiper: 23 Apr (1) Loretto, (DJS), first LWC record; 1 May (1) Green Pond, SUC (DTC, JPC); Least Sandpiper: 27 Mar (12) CCNWR (CGD, RJM); 30 Apr (12) to 12 May (4) GSP (DTC, JPC); 11 May (9) Johntown, TRC (CPN). White-rumped Sandpiper: 1 May (3) GSP (DTC, JPC), new Nashville area early spring date; 10 Jun (1) GSP (DTC, JPC). Pectoral Sandpiper: 22 May (1) GSP (DTC, JPC). Dunlin: 30 Apr (1) GSP (DTC, JPC). Dowitcher sp.: 4 May (2) OHL (CGD). American Woodcock: 6 Mar (3 calling) LF (BHS, SJS). AMERICAN AVOCET: 21 May (1) GSP (LFK, CGD, *et al.*), fourth Nashville area spring record. Ring-billed Gull: 21 May (28) OHL (NTOS). Herring Gull: 5 Apr (1) Loretto (DJS, DNS, Donald K.Simbeck). FRANKLIN'S GULL: 8 Apr (1 in breeding plumage) RL (Margaret L. Mann); 30 May (2) GSP (DTC, JPC), eighth and ninth Nashville area records. Caspian Tern: 24 Apr (20) OHL (LFK); 30 Apr (2) Ashland City (CGD); 21 May (5) OHL (NTOS); 22 May (7) GSP (DTC, JPC). Common Tern: 4 May (10) OHL (CGD). Forster's Tern: 24 Apr (1) RL (SR, CGD). LEAST TERN: 21, 22, and 24 May (1) GSP (LFK, *et al.*), fifth Nashville area record.

Dove-Thrushes: Ringed Turtle Dove: 30 Apr to end of period (1) Columbia (Cassie Perry, *fide* AL), presumably an escaped bird. Black-billed Cuckoo: 18 May 1) RL (CGD). Yellow-billed Cuckoo: 16 Apr (5) Ft. Negley, DVC (CGD). Chuck-will's-widow: 26 Apr (1) Columbia (AL, OBL). Whip-poor-will: 25 Apr (1) LF (BHS, SJS); 26 Apr (1) LCH (JCA); 26 Apr (1) Byrdstown (RCH); 27 Apr (1) Barnes Hollow, PUC (RWS), cool weather may have delayed this species. Chimney Swift: 27 Mar (1) LF (SJS, BHS). Ruby-throated Hummingbird: 12 Apr (1) LF (SJS, BHS); 17 Apr (1) Loretto (DNS); 17 Apr (1) Barnes Hollow, PUC (RWS), the freezes of April 19 and 20 may have affected these early arrivals. Red-headed Woodpecker: 28 May (1) SUC (Ann T. Tarbell). Yellow-bellied Sapsucker: 29 Apr (1) LCH (JCA). Olive-sided Flycatcher: 22 May (2) RL (SR). Willow Flycatcher: 30 Apr (1) Ashland City Marsh (RJM) early; 14 May (2) Pardue's Pond, CHC (CGD). Least Flycatcher: 1 May (2) Barnes Hollow, PUC (RWS); 1, 2, and 5 May (1) LF (SJS, BHS). Purple Martin: 1 Mar (1) Loretto (DJS). Rough-winged Swallow: 30 Mar (1) LF (SJS). Brown Creeper: 12 Apr (2) LCH (JCA). Bewick's Wren: 10 May (1) Dixon Springs, SMC (CPN); 27 May (1) east WMC (SJS). Winter Wren: 11 Apr (1) LCH (JCA). Golden-crowned Kinglet: 24 Apr (1) LF (SJS); 30 Apr-1 May (1+) Nashville spring count (NTOS). Ruby-crowned Kinglet: 13 May (1) LCH (JCA). Blue-gray Gnatcatcher: 1 Apr (1) LCH (JCA). Gray-cheeked Thrush: 17 May (1) LCH (JCA). Swainson's Thrush: 31 May (1) Barnes Hollow, PUC (RWS). Hermit Thrush: 12 Apr (1) LCH (JCA).

Vireo-Finch: Philadelphia Vireo: 22 May (6) RL (SR). "Brewster's" Warbler: 29 Apr (1) LF (SJS). Tennessee Warbler: 21 May (1) LCH (JCA). Chestnut-sided Warbler: 24 May (1) LF (SJS). Black-throated Blue Warbler: 7 May (1) LF (SJS, Ronald Hoff). Yellow-rumped ("Myrtle") Warbler: 14 May (1) LCH (JCA). Black-throated Green Warbler: 21 May (1) LCH (JCA). Blackburnian Warbler: 21 May (1) LCH (JCA). Pine Warbler: 4 Mar (1) LCH (JCA). Prairie Warbler: 11 Apr (5) Columbia (AL). Cerulean Warbler: 7 Apr (1) LF (BHS). American Redstart: 10 Apr (1) Lewis County (Mark Mayfield). Mourning Warbler: 24-25 May (2) RL (SR). Wilson's Warbler: 22 May (15) RL (SR), high number. Scarlet Tanager: 13 Apr (1) LF (SJS). Rose-breasted Grosbeak: 30 May (1) Barnes Hollow, PUC (RWS), quite late. Vesper Sparrow: 20 Apr (1) Percy Warner Park, DVC (DJV). Song Sparrow: 11 May (3 territorial males) Dixon Springs, SMC (CPN); 11 May (1 territorial male) Johntown, TRC (CPN); all season (up to 40 territorial males) MC (DFV). Lincoln's Sparrow: 24 Apr (2) Leoma (DJS); 6 May (2) and 10 May (1) RL (SR). White-crowned Sparrow: 11 May (6) Dixon Springs, SMC (CPN); 14 May (1+) Williamsport (KGA). White-throated Sparrow: 14 May (1) LCH (JCA); 14 May (1+) Williamsport (KGA); 18 May (1) Barnes Hollow, PUC (RWS). Dark-eyed Junco: 18 Apr (1) Byrdstown (RCH); 20 Apr (1) LCH (JCA). Bobolink: 3 May (50) Warner Parks, DVC (DFV); 26 May (2) and 29 May (2) Pardue's Pond, CHC (NTOS), latter date ties Nashville area late spring date. Rusty Blackbird: 23 May (1) Nashville (John O. Ellis), new area late spring date. Purple Finch: 16 Apr (7) Byrdstown (RCH); 1 May (2) Williamsport (KGA); 8 May (1) LF (SJS, BHS, Audrey R. Hoff); 18 May (1) Barnes Hollow, PUC (RWS), very late (perhaps Region's latest ever?).

Locations: CHC — Cheatham Co.; CCNWR — Cross Creeks National Wildlife Refuge, Stewart Co.; DVC — Davidson Co.; GSP — Gallatin Steam Plant, Sumner Co.; LCH — Love Circle Hill, Nashville/Davidson Co.; LF — Leiper's Fork, Williamson Co.; LWC — Lawrence Co.; MC — Metro Center, Davidson Co.; MUC — Maury Co.; MOP — Monsanto Ponds, Maury Co.; OHL — Old Hickory Lake; PIC — Pickett Co.; PUC — Putnam Co.; RL — Radnor Lake, Davidson Co.; SMC — Smith Co.; SUC — Sumner Co.; SWC — Stewart Co.; TRC — Trousdale Co.; WMC — Williamson Co.

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EASTERN RIDGE AND VALLEY REGION — Temperatures this period were above normal in early March and late May, and below normal the rest of the spring. A very late snowfall on 18 April resulted in a 5 inch accumulation in the Tri-Cities area, and 2-3 inches of quickly melting snow at Knoxville. This was followed by heavy frost, and record low temperatures were recorded at Knoxville on 19 and 20 April.

In the Elizabethton - Johnson City area, many spring arrivals were 2-3 weeks late, and no major migratory movements were noted. In the Knoxville area, many of the early arrivals (gnatcatchers, Yellow-throated, Black-throated Green and Black-and-White Warblers, Louisiana Waterthrush) were later than normal, and this trend continued with several other species. The migration there during the first half of May, however, was very good — many of the birds normally present at this time were in very good numbers, and some of the early migrants lingered to add to the species number. The Knoxville observers recorded the Indigo Bunting in much larger than normal numbers in May.

In Chattanooga, waterfowl moved through on schedule with the usual species being recorded. The peak day on Chickamauga Lake was 2 April when 75 Northern Shovelers, 3000 scaup, and 200 Red-breasted Mergansers were noted. Regular counts were made of the shorebirds at the Kingston Steam Plant, and the peak of the "peep" migration was recorded on 21 May.

Loon-Duck: Common Loon: max 4 Apr (71) CHL (RCS); 11 May (1) AUS (RLK); few reports MHL, with last report there 14 May (RDH); 22 May (4) SAB (KHD, LHD). Pied-billed Grebe: 1 Mar - 4 Apr (2-29) CL (KHD, LHD). Horned Grebe: 1 Mar - 24 Apr (1-25 sporadic) CHL (KHD, LHD, RCS). Double-crested Cormorant: 1-28 Mar (1-5) CHL (KHD, LHD); 10 Apr (1), 16 Apr (4) RAB (JAK); 1 May (1) KNC (KTOS); 22 May (1) SAB (KHD, LHD); 26 May (1) CHL (RCS). Great Egret: 25 Apr (1) AUS (RLK). Little Blue Heron: 5 May (1) CHA

(RCS). Cattle Egret: 10 Apr (1) RAB (JAK); 5 May (32) HRA (CWC); 11 May (1) SAB (KHD, LHD); 16-18 May (3) WHP (JAK). Green-backed Heron: 12 Mar 1 flying over Red Bank, early migrant? (PDR); 21 Mar (1) CHL (KHD, LHD) — probably the same individual that wintered in this area rather than an early migrant. Black-crowned Night-Heron: 12 Apr (1) AUS (RLK). Snow Goose: 1 Mar (1 white phase) HRA (KHD, LHD). Green-winged Teal: 6 Mar (80) DOL (JAK); 1 Mar - 4 Apr (1-25) HRA (KHD, LHD). Mallard: 6 Mar (270) DOL (JAK). Blue-winged Teal: 26 Mar - 16 Apr (3-18) DOL (JAK); 28 Mar (75) SAB (KHD, LHD); last 30 Apr AUS (RLK). Northern Shoveler: 28 Mar - 2 Apr (12-75) CHL (KHD, LHD); 10 Apr (8) RAB (JAK); 25 Apr (6) EBF (LJF); 25 Apr (1) AUS (RLK); 22 May (1) BLC (MLD). Gadwall: 10 Mar - 10 Apr (2-60) DOL (JAK). American Wigeon: 13 Mar (66) DOL (JAK). Redhead: 1-14 Mar (2-56) CHL (KHD, LHD); 13 Mar (10) DOL (JAK). Ring-necked Duck: 20-26 Mar (12-25) DOL (JAK); 2 May (1) KSP (LJF); 21-31 May (2) KSP (KHD, LHD). Greater Scaup: 1-14 Mar (65-200) CHL (KHD, LHD). Lesser Scaup: 4 Apr (30) CHL (KHD, LHD). Scaup species: 2 Apr (3000) CHL (LHD, PDR). Common Goldeneye: 3 Mar (1) BOL (RLK). Bufflehead: 20 Mar (2) DOL (JAK); 28 Mar (19) CHL (KHD, LHD). Common Merganser: 24 Apr (13) AUS (GDE). Red-breasted Merganser: 28 Mar - 4 Apr (6-200) CHL (KHD, LHD, PDR); 28 Mar (8) FLL (JAK); 30 Apr (1) AUS (RLK). Ruddy Duck: 1-14 Mar (5-35) CHL (KHD, LHD); 3 May (1) HRA (KHD, LHD).

Vulture-Woodcock: Turkey Vulture: 27 Mar (migration of 100 in 20 minutes) KNC (PDH). Mississippi Kite: 3 May (1) CHA (RCS) — 2nd Chattanooga area spring record. Bald Eagle: 20 Apr (1) AUS (RLK); 19 Mar, 20 May (1) NRL (JCH). Red-shouldered Hawk: 8 active nests reported from the Chattanooga area (KHD, LHD, *et al.*). Red-tailed Hawk: one active nest HRA (KHD, LHD). American Kestrel: pair nesting under eaves of house WHP (JAK). Black Rail: 1 May (1) KNC (JTT). King Rail: 25 Apr (1) CHA (RCS). Virginia Rail: 25 Apr (1) CHA (RCS); 29 Apr (1) - this apparently very tired bird spent several hours resting on the clipped lawn of Point Park, Lookout Mountain (KHD). Sora: 9 Apr-11 May (1-3) AUS (RLK); 21 May (1) WBL near Kingston (ARH, RDH). American Coot: 1 Mar - 4 Apr (885-2000) CHL (KHD, LHD). Sandhill Crane: spring migrants reported from CHA-SAB-HRA area 18 Feb - 22 Mar, approx. 1760 birds, with some duplication possible (Joda Ashley, CWC, Louise J. Cash, Brainerd Cooper Jr., Chuck Copeland, KHD, LHD, Lewis R. Fincher, Gertrude Fleming, Dave Mathewson Jr., Bill McSpadden); other reports, 15 Mar (7 in field) Grassy Cove, Cumberland Co. (CWC); 16 Mar (3) Cumberland Mtn. State Park (CWC). Black-bellied Plover: 21 May (1) KSP (KHD, LHD). Lesser Golden-Plover: 22 Mar (2), 2 Apr (1) SAB (KHD, LHD); 13 Apr (2) KNC (LNA, MWA, ARH, RDH). Semipalmated Plover: 20 Apr - 31 May (1-20) MWA, KHD, LHD *et al.*). Killdeer: the following numbers at these locations would be considered a late movement: 28 Mar (39) SAB (KHD, LHD); 28 Mar (57) HRA (KHD, LHD). Greater Yellowlegs: 21 Mar (1) HRA (KHD, LHD); 19 Apr (27) CHA (RCS). Lesser Yellowlegs: 21 Mar (2) HRA (KHD, LHD); 13 Apr (2) KNC (LNA, MWA, ARH, RDH); 25 Apr (10) CHA (RCS); 25 Apr - 16 May (2-3) EBF (LJF). Solitary Sandpiper: 25 Apr (10+) CHA (RCS); 16 May (1) EBF (LJF). Willet: 22 Apr (1) AUS (MD, HHD). Spotted Sandpiper: 1-28 Mar (1) CHL - same bird that wintered in area (KHD, LHD); 23 May (2) KSP (LJF). Upland Sandpiper: 25 Apr (1) CHA (RCS); 4 May (1) EBF (LJF). Sanderling: 17 May (1) KSP (KHD, LHD). Semipalmated Sandpiper: 3-31 May (21-450) KSP (KHD, LHD, LJF). Western Sandpiper: 13-21 May (up to 5) KSP (KHD, LHD). Least Sandpiper: 4-17 May (2-9) EBF (LJF); 3-31 May (3-110) KSP (KHD, LHD). White-rumped

Sandpiper: 30 APR (1) CHA (RCS); 17 May (6) KSP (KHD, LHD). Pectoral Sandpiper: 22 Mar - 4 Apr (50-150) SAB (KHD, LHD);23 May (1) KSP (MLD, KHD, LHD, LJF). Dunlin: 1 Mar - 4 Apr (45-50) SAB (KHD, LHD); 6 Mar (17) DOL (JAK); 3 May (1), 21 May (10), 23 May (6) KSP (KHD, LHD, LJF, MLD) - normally very few reports this late in season. Short-billed Dowitcher: 21 May (7 by call note) KSP (KHD, LHD). Common Snipe: 1 Mar - 2 Apr (22-92) SAB (KHD, LHD); 29 Apr (1) AUS (MD, SG). American Woodcock: 24, 26 May (1 singing) CHA (RAR).

Gull-Hummingbird: Laughing Gull: 1 May (1) KNC (JTT); 11 May (1) AUS (RLK). Bonaparte's Gull: 14 Mar (1) CHL (KHD, LHD); 2 Apr (1) DOL (JAK); 4 Apr (3) CHL (KHD, LHD); 23 Apr (1) NRL (JCH); 24 Apr (7) CHL (RCS); 25 Apr (1) BOL (RLK). Ring-billed Gull: 2 Apr (10) DOL (JAK); 3-21 May (1-5) KSP (KHD, LHD). Herring Gull: 1 Mar - 24 Apr (1-11) CHL (KHD, LHD, RCS). Caspian Tern: 21 May (3) KSP (KHD, LHD). Black Tern: 22 May (2) FLL (MLD). Black-billed Cuckoo: 10 May (1), 28 May (1) KNC (MLD, PDH). Common Barn-Owl: 4 Mar (1 apparent young bird) rock cliff near Walnut Street Bridge, CHA (PCH); same nest site used in WHP for 20th year (JAK); two active nest sites EJC (LHTOS). Common Nighthawk: 10 Apr (1) KNX (ARH, RDH) - early there. Chimney Swift: first arrivals reported 2 Apr at KNX (KTOS), about average there. Ruby-throated Hummingbird: first wave of arrivals 14-15 Apr at KNX (KTOS), with several reports of them feeding among flowers in the snow on 18 Apr.

Woodpecker-Swallow: Red-headed Woodpecker: 27 Apr (1) KNX (ARH); 1 May (1) KNC (KTOS); up to 11 present in one area of CHA during March and April (RAR). Yellow-bellied Sapsucker: last report EJC 30 Apr (MD). Olive-sided Flycatcher: 12 May (1) KNX (JCH, JMC, BRC). Willow Flycatcher: first noted 11 May EJC (LHTOS). Purple Martin: first wave of spring arrivals 1-4 Mar KNX (*fide* JBO). Tree Swallow: present 19 Mar - 6 May, EJC (LHTOS); 21 Mar (2) HRA (KHD, LHD); 28 Mar -2 Apr (2-250) SAB (KHD, LHD); 17 Apr (75) DOL (JAK); on 21 May two birds were feeding around the same snag on Douglas Lake where they were suspected to have nested last year (JAK). Bank Swallow: 30 Apr - 6 May (4-5) AUS (RLK); because this species is not known to nest in these areas, the following late reports are interesting: 23, 31 May (6) KSP (MLD, KHD, LHD, LJF); 28 May (5) east KNX (PDH). Searches are being made for colonies. Cliff Swallow: 1-11 May (1-3) AUS (MD, RLK).

Nuthatch-Warbler: Red-breasted Nuthatch: only report 1 May (2) KNX (CPN). Carolina Wren: early March nesting was reported EJC, but was unsuccessful when the weather turned cold again (LHTOS). Winter Wren: 1 May (2) KNC (KTOS), late. Marsh Wren: 30 Apr (1) AUS (RLK). Swainson's Thrush: first 19 Apr (1) KNX (JCH), good numbers there. Wood Thrush: first arrivals, 14 Apr (1) NOR (CPN), 15 Apr (several reports in KNX), a bit later than normal. Cedar Waxwing: present in low numbers most of season KNX, then increasing in mid-May (KTOS); 27 May (12) CHA (RAR). Loggerhead Shrike: 27 May (pair with 4 young) CHA (RAR). White-eyed Vireo: first 10 Apr (1) KNX (ARH, RDH, JCH) - later than normal. Solitary Vireo: first 20 Mar (1) NOR (CPN) - about average there; 14-31 May (1 singing on territory) RER (KHD, LHD). Warbling Vireo: 30 Apr (1) Blountville (MD). Tennessee Warbler: present at KNX 25 Apr - 22 May (JCH *et al.*), in higher than normal numbers; 22 May (1) SAB (KHD, LHD). Orange-crowned Warbler: 1 May (1) KNX (JMC, BRC); 12 May (1) KNX (JMC, BRC, JCH). Black-throated Blue Warbler: very high count of 9 on Knox County spring count, 1 May (KTOS); 4 May (1) Campbell County (CPN).

Prothonotary Warbler: 27-30 Apr (1) AUS (RLK). Swainson's Warbler: 14-31 May (2) RER (KHD, LHD); 1 May (1) KNX (JMC, BRC, CPN) - one of very few non-tower kill records from Knox County. Mourning Warbler: 15 May (1) Caryville, 27 May (1) NOR (CPN).

Tanager-Grosbeak: Scarlet Tanager: first 23 Apr at KNX (KTOS), late. Rose-breasted Grosbeak: first 27 Apr at KNX (ARH), then more numerous than normal there. Indigo Bunting: first 16 Apr (1) KNX (LNA, MWA, ARH, RDH); *very abundant* there in May with numerous widespread flocks of 10-30 birds (KTOS *et al.*). Dickcissel: 7 May (1) KNC (PDH *et al.*); 2-9 May (1-4 birds initiated territories, but did not remain in the area) JEC (JAK). Vesper Sparrow: 24 Mar - 15 Apr (1-3) AUS (RLK, GDE). Savannah Sparrow: 9 May (8) JEC (JAK); 20 May (1) CHA (RCS). Fox Sparrow: 27 Mar (1) EJC (GWS). White-throated Sparrow: 14 May (1) AUS (MD, SG). White-crowned Sparrow: 30 Apr (1) EJC (SG); 2 May (1) JEC (JAK). Dark-eyed Junco: 4 May (1) Point Park, CHA (KHD). Bobolink: 30 Apr - 9 May (1-4) EJC (RLK); 30 Apr - 9 May (70+) JEC (JAK); 30 Apr - 2 May (2-5) CHA (RAR); 21 May (2) JEC (JAK). Purple Finch: 7 May (1) EJC (SG). House Finch: 2-22 Mar (2-8) CHA (RAR); 1-28 Mar (1-10) SAB (KHD, LHD); 30 Mar (80) Newport (JAK); a few pair nesting EJC, with most of the migrants departing by 10 May (LHTOS); 29 Apr (2 - male & female, possible nesting pair) Oneida, Scott County (RCH). Pine Siskin: 5-18 Apr (1-2) EJC (HHD) - only report. Evening Grosbeak: 6 Apr (1) EJC (SG) - only report.

Locations: AUS — Austin Springs; BLC — Blount County; BOL — Boone Lake; CHA — Chattanooga; CHL — Chickamauga Lake; DOL — Douglas Lake; EBF — Eagle Bend Fish Hatchery; EJC — Elizabethton - Johnson City Area; FLL — Fort Loudoun Lake; HRA — Hiwassee River Area; JEC — Jefferson County; KNC — Knox County; KNX — Knoxville; KSP — Kingston Steam Plant; MHL — Melton Hill Lake; NOR — Norris; NRL — Norris Lake; RAB — Rankin Bottoms (Cocke County section of Douglas Lake); RER — Reflection Riding, CHA; SAB — Savannah Bay; WBL — Watts Bar Lake; WHP — White Pine.

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EASTERN MOUNTAIN REGION — The weather pattern this spring was much different than normal. Early March was very warm and it appeared that it might be an early spring, but cold returned on 10 March and remained into late May. Rainfall was below average in March but above average in April and May. A very late snowstorm on 18 April left 5 inches of snow in Elizabethton. As a result of this weather, the spring migration was unusual. Most wintering waterfowl left early and most spring migrants were late in arriving. No major waves were noted, and about all the expected species were observed, but in lower than average numbers. Accipitors and shorebirds were present in noticeably lower numbers.

Heron-Sandpiper: Green-backed Heron: 10 Apr (1) ELI (HLF), first report. Yellow-crowned Night-Heron: 16 Apr (1) HS (GDE), first report. Blue-winged Teal: first 22 Mar, through 30 Apr, Wagners Island, Eli (GDE). American Wigeon, Ring-necked Duck, Lesser Scaup: all reported in below-average numbers in ELI area. Bufflehead: 30 Apr (2) WibL (RDL, GOW). Common Merganser: 30 Apr (4) WatL (RDL, GOW). Ruddy Duck: 21 Mar (1) GLP (HLF); 6 May (1) Razor Farm (Dick Hegler). Broad-winged Hawk: first 4 Apr (2) HS (RLK). Osprey: first 24 Mar (1) WatL (GDE, HLF); last 28 May (1) Bluff City (GDE). Spotted Sandpiper: first 12 Apr (1) GLP (GDE). Solitary Sandpiper: first 8 Apr (2) ELI (HLF). BAIRD'S SANDPIPER: 24 Apr (1) ELI (GDE).

Cuckoo-Vireo: Black-billed Cuckoo: 2 May (1) ERW (GWS). Common Barn-Owl: 2 nests near SHL (*fide* GDE), 1 pair near Milligan (GDE). Chimney Swift: first 5 Apr (3) Bristol (RLK). Yellow-bellied Sapsucker: last 30 Apr (1) HM (RDL, GOW). Willow Flycatcher: first 15 May (2) GLP (RLK), at least 5 pairs in area. Least Flycatcher: first 27 May (1) Roan Mtn. (MD). Rough-winged Swallow: first 23 Mar (2) WatL (RLK). Purple Martin: first 6 Mar (2) ELI (*fide* LH). Red-breasted Nuthatch: no reports from ELI area. Veery: first 28 Apr (1) ELI (HLF). Wood Thrush: first 16 Apr (1) ELI (HLF). White-eyed Vireo: first 16 Apr (1) HS (GDE). Solitary Vireo: first 30 Mar (1) WatL (RDL, GOW). Warbling Vireo: first 28 Apr (2) ELI (HLF).

Warbler-Finch: Golden-winged Warbler: first 30 Apr (1) HM (RDL, GOW). ORANGE-CROWNED WARBLER: 16 Apr (1) ELI (BW), last seen after wintering at feeder. Nashville Warbler: 30 Apr (1) WatL (GDE, HLF). Yellow-rumped Warbler: last 14 May (1) ELI (HLF). Pine Warbler: in ELI area 9 Mar - 30 Apr (*fide* GDE). Black-and-White Warbler: first 4 Apr (1) Milligan (RLK). Swainson's Warbler: first 30 Apr (1) Rock Creek Park (GWS). Louisiana Waterthrush: first 4 Apr (1) Laurels (RLK). MOURNING WARBLER: 23-30 May (1) SHL (RL). Canada Warbler: first 7 May (1) ELI (HLF). Vesper Sparrow: 24 Mar (3) St. Johns (GDE); 30 Mar (10) County Farm, ELI (RDL, GOW). Fox Sparrow: last 22 Mar (1) ERW (GWS). White-throated Sparrow: last 14 May (2) ELI (HLF). White-crowned Sparrow: last 28 Apr (1) ELI (GDE). Rusty Blackbird: last 21 Mar (15) ELI (HLF). No reports of Pine Siskins, crossbills, or Evening Grosbeaks. Purple Finch: last 8 May (2) ELI (HLF). House Finch: most migrants gone by 10 May, with a few pairs remaining and probably nesting (*fide* GDE).

Locations: ELI — Elizabethton; GLP — Great Lakes Pond, ELI; HM — Holston Mtn.; HS — Hunter Swamp, ELI; SHL — South Holston Lake area; WatL — Watauga Lake; WibL — Wilbur Lake.

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A NESTING STUDY OF WOOD DUCKS ON KENTUCKY LAKE, TENNESSEE

Veit M. Spero, F.G. Dallmeier, R.M. Wheat,
and T.D. Pitts

The original goal of this project was to study the dispersal of young Wood Ducks (*Aix sponsa*) from their nests on an island in Kentucky Lake. When it became obvious that we could not fulfill the primary objective, due to logistical problems, we switched our efforts to a description of the Wood Duck nesting activities on the island. While numerous nesting studies of Wood Ducks have been conducted (see Bellrose 1976:177-194 for a review of Wood Duck biology), including some in Tennessee (e.g., Lumpkin 1972), several aspects of Wood Duck nesting biology remain poorly understood or adequately documented.

DESCRIPTION OF STUDY AREA

The study area was a long, narrow 1.2 ha island in Kentucky Lake near Eva, Benton County, Tennessee. Coordinates of the island are 36^0 87'18'' N and 87^0 59'30'' W. Tennessee Wildlife Resources Agency (TWRA) personnel had placed Wood Duck nest boxes on the island in the late 1960's. Seventy-three nest boxes with a total of 100 compartments were present in 1981 and 1982. Four types of nest boxes were present. Thirty-eight were standard Wood Duck nest boxes of the type described by Bellrose (1955); 24 were ammunition boxes divided into 2 compartments; 1 ammunition box had 4 compartments; and 10 cavities consisted of two 5-gallon plastic buckets fastened end to end. Compartments in the wood boxes ranged from 20x20x50 cm to 25x25x50 cm; all entrances were approximately 10 cm in diameter. TWRA personnel removed debris from each cavity and added nesting material prior to each nesting season. In 1981 straw was used as nest material, and wood shavings were used in 1982. Most of the boxes were 2-3 m above ground; all were attached to trees. The dominant tree on the island was sweet gum (*Liquidambar styraciflua*). Much of the island, especially the western end, had a dense understory containing shrubs and vines such as poison ivy (*Rhus radicans*) and Japanese honeysuckle (*Lonicera japonica*). Buttonbush (*Celphalanthus occidentalis*) and some willow (*Salix* sp.) surrounded the island.

METHODS

Nest cavities were inspected 5 times during the 1981 nesting season (3, 12, 19, 23 May, and 3 July) and weekly from mid-March through May of 1982. In 1981, 90 of the 100 compartments were checked, but in 1982 all compartments were inspected. Maximum length (L) and maximum width (W) were measured on 203 eggs in 14 clutches in 1982. A dial caliper with 0.1 mm graduations was used. The volume (V) of each egg was calculated using the formula V (cc) ¾ 0.51 L (mm) W (mm)^2/1000 (Hoyt 1979).

RESULTS AND DISCUSSION

Cavity use

Table 1 summarizes use of the different types of cavities. Common Grackle (*Quiscalus quiscula*) nests in the boxes have been reported elsewhere (Spero and Pitts 1984) and will not be dealt with in detail here. The decline in the number of Wood Duck nests, from 57 in 1981 to 44 in 1982, might be partly attributed to the instigation of an experimental Wood Duck hunting season in September 1981.

TABLE 1. Use of different types of nesting cavities on the study area.

	Total Number of Cavities		Number Used By Wood Ducks		Number Used By Grackles		Number Unoccupied	
Type Cavity	1981	1982	1981	1982	1981	1982	1981	1982
Standard Wooden	31	38	20(64.5%)	16(32.1%)	2(6.5%)	6(15.8%)	9(29%)	16(42.1%)
Double Ammunition Box	46	48	33(72%)	19(39.6%)	11(24%)	12(25%)	2(4%)	17(35.4%)
Plastic Bucket	9	10	3(33.3%)	8(80%)	3(33.3%)	0(0%)	3(33.3%)	2(20%)
Four Cavity Ammunition Box	4	4	1(25%)	1(25%)	3(75%)	2(50%)	0(0%)	1(25%)
Totals	90	100	57(63%)	44(44%)	19(21%)	20(20%)	14(15.6%)	36(36%)

In 1981 the average size of 51 clutches was 13.7 with a range of 4-34. In 1982 the average size of 34 clutches was 13.2 with a range of 4-25. Bellrose (1976) defined a dump nest as any Wood Duck nest having more than 15 eggs, but he noted that some females may lay more than 15 eggs. Clawson *et al.* (1979) used 18 eggs as a minimum for defining a dump nest provided no other information was available. As suggested by Morse and Wright (1969) and Clawson *et al.* (1979), nests with more than 1 egg deposited per day or nests where the laying cycle was upset for more than 3 days should also be considered dump nests. Due to the small number of visits we made in 1981, our only reliable criterion for detecting dump nests was the presence of more than 15 eggs. Nineteen (33%) of the 57 nests in 1981 were dump nests; their average size was 21.8 eggs. Bellrose (1976) reported an average of 21.2 eggs in dump nests elsewhere. In 1982, 11 (25%) of the 44 nests were judged to be dump nests based on the number of eggs and the rate of laying. The average clutch size of dump nests in 1982 was 18.3 eggs.

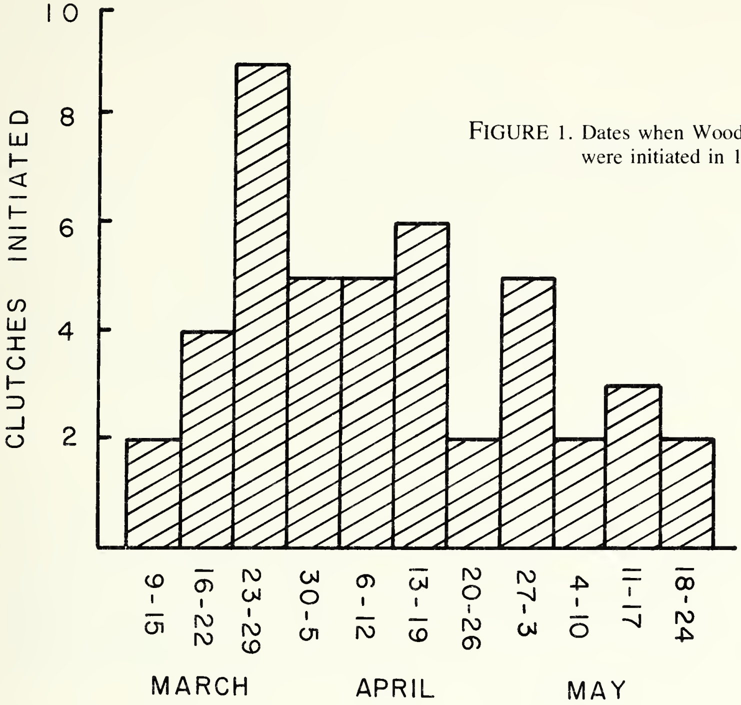


FIGURE 1. Dates when Wood Duck clutches were initiated in 1982.

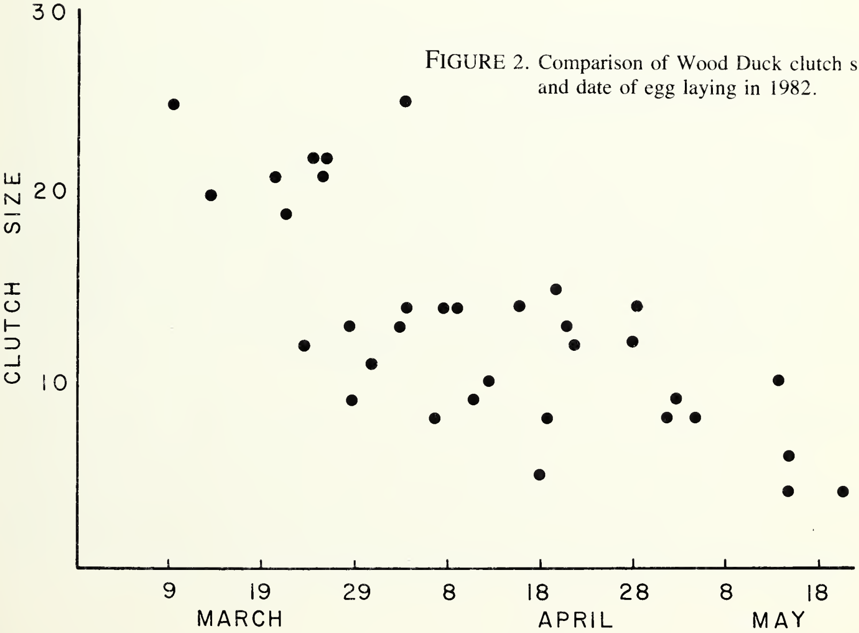


FIGURE 2. Comparison of Wood Duck clutch size and date of egg laying in 1982.

Normal nests (i.e., not dump nests) averaged 8.9 eggs (38 clutches) in 1981 and 10.7 eggs (23 clutches) in 1982. Part of the difference between the 2 years may be attributed to our detection, and exclusion from calculations, of incomplete clutches in 1982.

In 1982, clutch initiation began on 9 March, and peaked in late March (Figure 1). Clutch size decreased as the nesting season progressed (Figure 2), and this relationship can be expressed by the regression equation $Y = 37.1 - 0.233X$ ($r^2 = 56.6$), where Y is the clutch size, and X is the date of clutch initiation. Note in Figure 2 that the 8 nests judged to be dump nests on the basis of their size were all produced in the first half of the nesting season as was also observed by Grice and Rogers (1965) in their study. Also note that the presumed dump nests are clearly separable from the normal clutches when plotted in this manner. The smaller clutches in May possibly represent renesting attempts. Dump nesting has been the subject of much debate (e.g., Jones and Leopold 1967; Morse and Wright 1969; Clawson *et al.* 1979) but with little concensus on its causes and effects.

Nest abandonment

There was a high rate of nest abandonment each year of the study. In 1981 at least 36% (20 of 57) of the clutches were abandoned; however, other nests may have been abandoned since the outcome of 24 nests was not determined. In 1982, 39% (17 of 44) of the nests were abandoned, in addition to 25% (11 of 44) of the nests that were destroyed by grackles. The high rate of abandonment may have been due to the high density of nest cavities as suggested by Jones and Leopold (1967). Grackles may also have been responsible for some of the abandonments, in addition to the nests they destroyed.

Hatching

In 1981 complete data was available for 10 successful nests. These nests contained a total of 184 eggs, of which 104 (57%) hatched. The average number of ducklings per nest at hatching was 10.4. Six of the 10 nests were dump nests. In dump nests, hatching success was 51% with an average brood size of 12.7. Hatching success in normal nests was 78% with an average of 7.0 ducklings per nest. Hatching was observed in 4 dump nests and no normal nests in 1982. Of 85 eggs, 74% hatched, resulting in an average brood size at hatching of 15.8. The smaller percentage but larger actual number of eggs that hatched in dump nests in 1981 is typical of the results in other studies (e.g., Clawson *et al.* 1979). However, in 1982 the percentage of eggs that hatched in dump nests (74%) approached the percentage hatched in normal nests in 1981 (78%). Our small sample sizes preclude statistical analysis and these percentages should be viewed cautiously as they may not realistically represent the population.

Egg size

Table 2 gives the average length, width, and calculated volume for each of the 14 clutches measured. Average length was 49.9 mm with a range of 40.1-55.5 mm; average width was 38.5 mm with a range of 34.7-41.5 mm. Average volume was 38.0 cc with a range of 28.3-47.5 cc. The average length and width of all eggs in our study are only slightly different from the average 51.1 x 38.8 mm reported by Bent (1923:162) for 99 Wood Duck eggs from several sources.

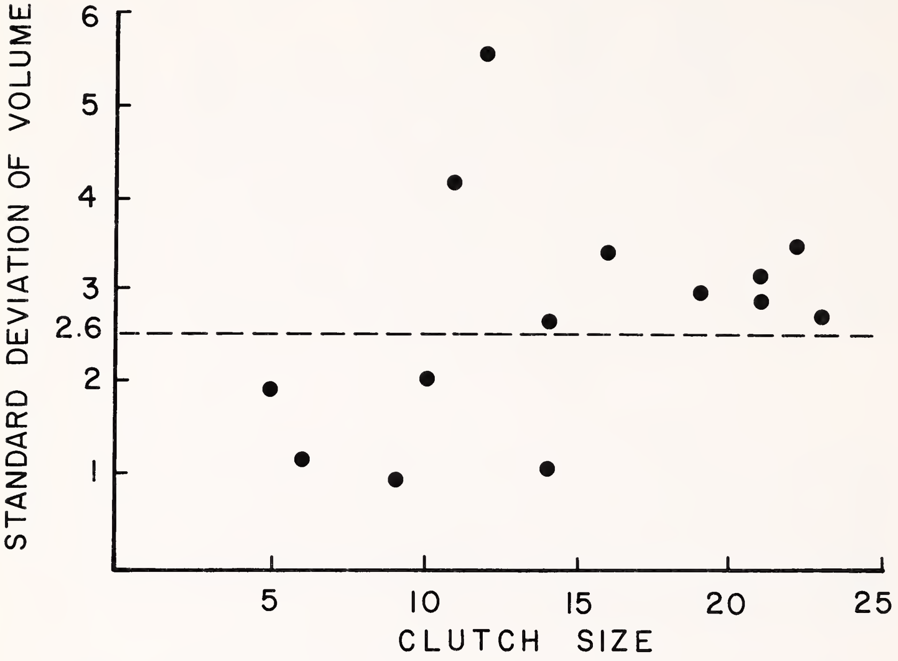
TABLE 2. Summary of egg sizes* from clutches collected on Kentucky Lake, Tennessee.

	Clutch Number	Clutch Size	Length x̄	Length SD	Width x̄	Width SD	Volume x̄	Volume SD
	1	22	50.0	(1.7)	39.0	(1.5)	38.8	(3.6)
	2	21	49.9	(2.8)	39.5	(0.9)	39.7	(3.3)
	3	19	50.6	(1.7)	38.7	(1.5)	38.7	(3.0)
	4	21	48.7	(1.9)	37.5	(1.1)	34.9	(3.0)
	5	23	49.8	(1.9)	38.4	(0.9)	37.5	(2.8)
	6	16	49.3	(2.4)	38.7	(1.0)	37.7	(3.5)
	7	11	52.1	(2.5)	39.2	(1.2)	40.9	(4.1)
	8	14	52.0	(1.3)	38.4	(0.5)	39.0	(1.1)
	9	5	51.5	(2.0)	39.3	(0.4)	40.5	(1.9)
	10	10	51.8	(1.2)	40.1	(0.8)	42.5	(2.1)
	11	14	49.4	(1.9)	38.8	(0.8)	37.9	(2.8)
	12	12	47.0	(2.7)	36.3	(1.9)	31.9	(5.7)
	13	6	46.2	(0.9)	36.9	(0.5)	32.0	(1.2)
	14	9	51.3	(1.2)	38.3	(0.4)	38.4	(1.0)
Totals	14	203	49.9	(2.4)	38.5	(1.4)	38.0	(4.0)

*Linear measurements in mm; volume in cc.

One of the reasons for measuring eggs was to investigate the possibility of detecting dump nests by differences in egg sizes as suggested by Jones and Leopold (1967). While the eggs laid by a female will vary in size, there is usually less variation within clutches than between clutches (Romanoff and Romanoff 1949:66; Kendeigh 1975). However, it is possible that two females of the same genetic background, size, age, and physiological condition might lay eggs so similar they could not be separated by their measurements. We did not know the normal amount of intraclutch variation in Wood Ducks. Since we knew on the basis of clutch size that our study area had a high incidence of dump nests, we assumed it was possible for any of the clutches to have been produced by more than one female. Consequently, we used for a determination of intraclutch variation the 3 clutches from natural cavities reported by Dixon (1924). These had 7, 9, and 10 eggs, respectively; the eggs averaged 52.36 x 39.74 mm. Based on clutch size and the density of the population, each of these clutches was almost certainly laid by a single female. The standard deviation (SD) for the volume of each of these clutches is 0.52, 1.80, and 2.57. We assumed the maximum SD of a clutch laid by a single female is 2.60 and plotted our clutch size against volume SD (Figure 3). All of the clutches with 15 or more eggs had a SD greater than 2.60 as did smaller clutches.

FIGURE 3. Comparison of standard deviation of egg volume with clutch size in 14 sets of Wood Duck eggs. See text for explanation.



Based on clutch size, we would have described 6 of 14 clutches as dump nests while consideration of the variation in size indicates 9 of the 14 were probably dump nests. In some clutches the variation in egg size was obvious; for example Clutch-12 had 12 eggs, 10 of which ranged in volume from 28.21 cc to 30.81 cc. The other 2 eggs had volumes of 40.67 cc and 46.38 cc. Apparently this nest contained eggs laid by 3 different females.

SUMMARY

We studied nesting biology of Wood Ducks using nest boxes on an island in Kentucky Lake in Benton County, Tennessee, during 1981 and 1982. Fifty-seven clutches were laid in 1981 and 44 clutches were laid in 1982. Average clutch size was 13.7 in 1981 and 13.2 in 1982. Clutches ranged in size from 4-34. At least 19 (33%) of the clutches in 1981 were produced by more than 1 female laying in a nest (i.e., dump nests). In 1982, 11 (25%) of 44 clutches were dump nests. Normal nests averaged 8.9 eggs in 1981 and 10.7 eggs in 1982. Dump nests were produced only in the first half of the nesting season. The peak of clutch initiation was 23-29 March in 1982. We did not visit the island frequently enough in 1981 to accurately determine when most nests were initiated. At least 30 (31%) of the 101 nests were abandoned. Common Grackles nested in some of the boxes and, in addition, apparently destroyed 11 (25%) of the 44 Wood Duck nests in 1982. At 10 successful nests 104 (57%) of 184 eggs hatched with a smaller percentage

hatching from dump nests. Two hundred and three eggs in 14 clutches averaged 49.9 x 38.5 mm and 38.0 cc. Variations in egg sizes within clutches were used to detect some dump nests with less than 15 eggs.

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We would like to thank Jack Colwick and Jed Petit, both of TWRA, for suggestions, assistance, and loan of equipment.

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AUTUMN HAWK FLIGHTS — 1983

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Between 4 September and 5 November 1983, TOS members spent 237.5 hours watching hawks from their favorite lookouts and counted 10,382 hawks (Tables 1, 2). Although 90 fewer hours of observation were spent this year than last year, Broad-winged Hawk numbers well exceeded last year's numbers. Two unidentified eagles, a Golden Eagle and a Merlin, were the rarest species reported during the season.

Temperatures and precipitation for September were slightly below normal. The days of greatest precipitation were 13, 14 and 21 September for most East Tennessee weather stations.

The first Broad-winged Hawk flight exceeding 100 birds was seen on 15 September by Holly Overton from Look Rock in less than 2 hours of observation. Between 5 and 21 September, daily Broad-wing totals ranged from 0-197 birds. Following dropping temperatures and very windy weather on 20-21 September, a cold front finally pushed through Tennessee bringing with it the season's peak Broad-wing flights. The season's highest Broad-wing total came from Thorn Hill (Clinch Mountain) on 22 September (Table 2). Marcia Davis and I watched from this lookout from 0950 to 1850 hours. Broad-wings were already moving when we arrived, and continued to stream through all morning and early afternoon. However, between 1500 and 1800, 2,138 Broad-wings passed over our lookout with the largest kettle of 863 occurring at 1725. Most of these birds headed off in a southeasterly direction, towards Look Rock. Unfortunately Look Rock was not monitored during the late afternoon hours. For the 3 hours that Look Rock was monitored, 1100 to 1400, 357 Broad-wings were seen. While Thorn Hill was reporting high numbers of migrating Broad-wings, hawk activity at Mt. Roosevelt was very slow (16 Broad-wings in 6 hours).

Although many of the Broad-wings migrated down Clinch Mountain on 24 September, they seemed to follow a different route on 23 September. Paul Hartigan manned Thorn Hill from 0930 to 1800 on 23 September and only saw 330 Broad-wings. However, Paul Pardue counted 1,040 Broad-wings between 1000 and 1530 from Look Rock. More hawks were reported from Walden's Ridge on 23 September than the previous day. I was on Laurel Grove Firetower and saw 776 Broad-wings in 5 hours with the largest kettle of 170 birds passing over at 1350. J.B. Owen, 40 km southwest of me on Mt. Roosevelt, saw 228 Broad-wings from 1000 to 1600, with the majority passing through between noon and 1300. At Signal Point at the southern end of Walden's Ridge, James Patton saw 337 Broad-wings between 1115 and 1600 with 125 birds seen before noon.

The season's final Broad-wing peak was on 24 September. Look Rock reported 1,566 Broad-wings in 9 hours. Signal Point had 752 Broad-wings in 8 hours (this station's highest daily total). Thorn Hill was active between 1015 and 1415 but only saw 140 Broad-wings. Other stations active on this day reported fewer than 100 Broad-wings total. After 24 September no Broad-wing daily totals exceeded 100 birds. Between 1 October and 5 November a maximum of 2 Broad-wings were seen daily.

Most observers reported from 1-4 resident Red-tailed Hawks from their stations throughout the season. Many of these birds were judged to be residents because of their behavior (circling or flying up and down ridges). However, on 15

October, Ken Dubke saw 7 Red-tails from Signal Point believed to be migrants. The season's peak Red-tail numbers were reported between 27-30 October. On 27 October, Paul Hartigan saw 5 Red-tails from Thorn Hill. Paul Pardue reported 10 Red-tails over Look Rock on 29 October. However, the season's highest daily Red-tail count, of 21 birds, was reported from Look Rock on 30 October by Audrey Hoff. No Red-tails were reported from active stations after 30 October.

Only 8 Red-shouldered Hawks were reported for the 1983 season, which is lower than the previous 3 years' average of 23 but comparable to 1972-1979 when 4-9 Red-shoulders were reported annually.

Both Sharp-shinned and Cooper's Hawks were reported in lower numbers than last year, partially due to fewer observation hours. Throughout most of the season, up to 4 Sharp-shins were seen from lookouts daily. The highest daily Sharp-shin total was 9 birds on 15 October at Signal Point. Other high daily totals were 6 birds at Look Rock on 24 September and at Signal Point on 15 October. Only 12 Cooper's Hawks were reported this season with the highest daily total of 3 birds on 30 October at Look Rock. In 1982 and 1981, Cooper's Hawks totaled 31 and 30 birds, respectively.

Northern Harriers continued to be seen in low numbers from Tennessee lookouts. Of 14 total harriers reported, 8 of these were from Look Rock. The maximum daily total was 4 birds on 24 September at Look Rock seen by David Highbaugh.

Ospreys were seen in numbers similar to that of the past 10 years (7 birds/100 hours of observation). Over half of the 16 birds reported were seen from Look Rock. Audrey Hoff and David Highbaugh reported the highest daily total of 5 birds from Look Rock on 24 September.

A total of 16 American Kestrels was reported from Tennessee lookouts, slightly more than in previous years (1982-81-80, 11-11-7). The majority of these birds moved through between 17-25 September. A Merlin was seen by Holly Overton on 15 September at Look Rock. A Merlin was also reported from Mendota on 23 September. No Peregrine Falcons were reported from Tennessee lookouts this season. However, 2 Peregrines were seen from Mendota Firetower, Virginia, on 23 September.

The season's only eagles were seen on 29 October by Paul Pardue at Look Rock. Two unidentified eagles and one adult Golden Eagle were seen between 1100 and 1300.

Most lookouts reported from 1-21 resident Turkey Vultures during the season. Highest numbers of migrant Turkey Vultures were seen between 16 October - 2 November. Highest daily totals were reported from Thorn Hill (27 October, 165 birds) and Look Rock (29 October, 143 birds). Although not as commonly reported as Turkey Vultures, Black Vultures were seen in low numbers (mostly 7 birds or less) during the season. Highest daily totals were reported from Look Rock on 17 September (18 birds) and 30 October (33 birds).

TABLE 1. TENNESSEE AUTUMN HAWK FLIGHTS - 1983

Date	Location	Reporter (No. Observers)	Hours	TV	BV	SS	CH	RT	RS	BW	NH	OS	AK	Others	Total
09/04	Look Rock	A. Hoff (1)	1			1				1					2
09/09	Laurel Grove FT	L. Fowler (2)	2	3				1		2					6
09/10	Look Rock	A. Hoff (1)	3.5					1							1
09/11	Look Rock	A. Hoff (1)	4.5	1	1		1			3				1b,1u	8
09/14	Look Rock	H. Overton (1)	2.3	11										3b	14
09/14	Mt. Roosev. FT	P. Pardue (1)	1.5	5						1	1				7
09/15	Thorn Hill	P. Hartigan (1)	5.8	7	4			3		64		1	1	1a,3b,4u	88
09/15	Look Rock	H. Overton (1)	1.8	1						127		1		1 Merlin	130
09/15	Laurel Grove FT	L. Fowler (2)	5	3	7	1		1	1	86				6b	105
09/16	Laurel Grove FT	L. Fowler (2)	3	1											1
09/16	Bon Air	S. Bell (2-3)	6								1				1
09/17	Bon Air	S. Bell (6-23)	9			1		4	1	49	2			2b	59
09/17	Kyles Ford FT	L. Fowler (2)	4	4	8			3		55		1		1b	72
09/17	Laurel Grove FT	M. Davis (2)	4.5	4					1	3				4b,1u	13
09/17	Look Rock	A. Hoff (2-6)	6.5	14	18			3		71	2		1	3a,7b	119
09/17	Signal Pt.	K. Dubke (1)	8	2	2	2	1			133					140
09/18	Bon Air	S. Bell (8-16)	8			1	1	2		98		1	1	4b	108
09/18	Laurel Grove FT	L. Fowler (3)	4	6				1	1	20		1		2a,1b	32
09/18	Look Rock	A. Hoff (6-12)	7.1	21	6	1	2	2		197	1	1	3	1b,2f,1u	238
09/18	Signal Pt.	K. Dubke (1)	8.5			3				40			1		44
09/19	Signal Pt.	J. Patton (1)	2	1						23					24
09/22	Look Rock	H. Overton (1)	3	3		2				357					362
09/22	Mt. Roosev. FT	J. B. Owen (1)	6	2				2		16			2		22
09/22	Thorn Hill	L. Fowler (2)	9	13	3			2		2464		1	2	1f,6u	2492
09/23	Thorn Hill	P. Hartigan (1)	8.5	17	5	2		2		330		1		3a,3b,6a	374
09/23	Look Rock	P. Pardue (2)	5.5	10	4	2		3	1	1040		1		7b,1u	1069
09/23	Laurel Grove FT	L. Fowler (1-2)	5	3	3	4				776			1	2a	789
09/23	Signal Pt.	J. Patton (1)	4.3			1				337					338
09/23	Mt. Roosev. FT	J. B. Owen (1-3)	6	2				2		228					232
09/24	Look Rock	D. Highbaugh (1)	5.5	5	4	2		1		1023	4	3	1	10b	1053
09/24	Look Rock	A. Hoff (3-7)	9			6	1	4		1566		2	1	6a,28b,5u	1619
09/24	Holston Mt. FT	R. Knight (7)	3	1				1		48		1		2b	53
09/24	Mt. Roosev. FT	J. B. Owen (2-10)	4							76			1		77

09/24	Thorn Hill	L. Fowler (3)	4	6	3			2		140				3b,2u	156
09/24	Signal Pt.	K. Dubke (1)	8	4				4		752					760
09/25	Look Rock	A. Hoff (4-7)	4	3		1				97		1	1	3u	106
09/25	Signal Pt.	K. Dubke (1)	8.5	1		4	1	1		64	1		1		73
10/01	Signal Pt.	K. Dubke (1)	8	2	3	4		1							10
10/01	Laurel Grove FT	L. Fowler (1)	2	4	5	2		2	1	1				7a	22
10/02	Look Rock	A. Hoff (1)	2			1				1					2
10/02	Signal Pt.	K. Dubke (1)	8			6	2	3		2					13
10/09	Laurel Grove FT	L. Fowler (1)	2	3		1		2							6
10/15	Signal Pt.	K. Dubke (1)	8			9		7			1				17
10/16	Look Rock	A. Hoff (1)	3	34	7									2a	43
10/27	Thorn Hill	P. Hartigan (1)	7.2	165	3	4		5						6a,1u	184
10/29	Look Rock	P. Pardue (1)	4.5	143	1	2		10						2a,2E,1GE,	161
10/30	Look Rock	A. Hoff (1-2)	4.5	62	33	4	3	21	2		1			9a,4u	139
11/02	Thorn Hill	P. Pardue (1)	1	21	2										23
11/05	Look Rock	A. Hoff (1)	1.5	11										1u	12
15 days	Mendota Ft. VA[1]	D. Puckette	83.0	21	72	101	30	128	7	7,620	3	6	33	4GO,RL,BE 2PG,ML,9u	7821
Total			237.5	599	122	65	12	95	8	9268	14	16	16	167	10,382

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[1] Not included in Tennessee totals.

TABLE 2. AUTUMN HAWK FLIGHTS AT SIX SELECTED TENNESSEE LOOKOUTS

Lookout	Days	Hours	BW high	TV	BV	SS	CH	RT	RS	BW	NH	OS	AK	U	Total
Look Rock	16	63.6	1566 (9/24)	319	74	20	7	44	3	3460	8	9	6	86	4036
Signal Pt	9	63.3	752 (9/24)	10	5	29	4	16	0	1351	2	0	2	0	1419
Laurel Grove FT	8	27.5	776 (9/23)	27	15	8	0	7	4	888	0	1	1	23	974
Thorn Hill	6	35.3	2464 (9/22)	229	20	6	0	14	0	2998	0	3	3	44	3317
Mt. Roosevelt FT	4	17.5	228 (9/23)	9	0	0	0	4	0	321	1	0	3	0	338
Bon Air	3	23	98 (9/18)	0	0	2	1	6	1	147	3	1	1	6	168

KEY TO SPECIES ABBREVIATIONS IN TABLES

TV - Turkey Vulture; BV - Black Vulture; GO - Northern Goshawk; SS - Sharp-shinned Hawk; CH - Cooper's Hawk; RT - Red-tailed Hawk; RS - Red-shouldered Hawk; BW - Broad-winged Hawk; RL - Rough-legged Hawk; NH - Northern Harrier; OS - Osprey; AK - American Kestrel; E - unidentified eagle; BE - Bald Eagle; GE - Golden Eagle; PG - Peregrine Falcon; ML - Merlin; a - unidentified *Accipiter*; b - unidentified *Buteo*; u - unidentified raptor.

LOOKOUTS

For a detailed description of lookout stations not described in this report, see *Migrant* 52:89-90, 1981; 53:62, 1982; 54:36-37, 1983.

Holston Mountain FT - This firetower is located at an elevation of 1,263 km (4,145 ft.) on Holston Mountain in Carter County, 19 km northeast of the town of Elizabethton (82⁰04'40''N, 36⁰27'27''W, Holston Valley, Tenn. 7.5 quad. USGS).

Rt. 4, Box 541, Valley Lane, Clinton, TN 37716. Accepted 8 November 1984.

REQUEST FOR ASSISTANCE

OWL PELLETS WANTED — Drs. Paul W. Parmalee and Walter E. Klippel are interested in obtaining good series of pellets from Great Horned, Barred, and Common Barn-Owls. The pellets will be analyzed to determine the food habits of the owls, information which is very helpful in an ongoing study of bird and small mammal remains from a late Pleistocene/early Holocene cave deposit located along the Duck River, Maury Co., TN. This study has already resulted in publications in the *Auk* and the *Journal of Field Ornithology*.

Persons having access to series of pellets, such as from a nest site or winter roost, are asked to contact Dr. Parmalee at the Dept. of Anthropology, Univ. of Tennessee, Knoxville, TN 37996, ph. 615-974-2144 or 974-4408.

MEMBERSHIP LIST

DECEMBER, 1983

TENNESSEE ORNITHOLOGICAL
SOCIETY

MEMBERSHIP LIST

ABBOTT, Mrs. Carlton L., 214 N. Spring Street, Everett, PA 15537-1164	BRI	1954
ABERNATHY, Mrs. Frances, 1106 Gale Lane, Nashville, TN 37204	NASH	1966
ADAMS, M/M Carl E., 19 Whispering Pines Dr., Signal Mountain, TN 37377	CHAT	1982
**ADAMS, M/M Paul, P. O. Box 3175, Crab Orchard, TN 37723	KNOX	1957
ADAMS, Mrs. Wilton A., 4121 Towanda Tr., Knoxville, TN 37919	KNOX	1983
ALEXANDER, Mrs. David, 3326 Love Circle, Nashville, TN 37212	NASH	1978
ALLEN, Mrs. Grayson, 1409 Idlewild Avenue, Lebanon, TN 37087	SEL	1977
ALLEN, Mr. Joe D., Route 3, Box 296, Clarksville, TN 37043	TAL	1972
**ALSOP, Dr. Fred J., III, 302 Evergreen St., Rt. 6, Church Hill, TN 37642	KING	1967
ALTOM, Mr. Frank, 2000 Eastwood Ave., Kingsport, TN 37664	TAL	1982
ANDERSON, M/M Clyde D., 1412 McGavock Pike, Nashville, TN 37216	NASH	1963
ANDERSON, Mrs. Eldon, Box 3, Ellendale, TN 38029	MEM	1948
ANDERSON, Mr. Kenneth, Box 425, Williamsport, TN 38487	COL	1974
ANDERSON, Mrs. Laurence, 626 Debbie Dr., Hermitage, TN 37076	NASH	1979
ANDERSON, M/M Lloyd D., 510 Brady Point Rd., Signal Mountain, TN 37377	CHAT	1975
ANSLEY, Mrs. Jack, 5052 Lakeview Dr., Nashville, TN 37220	NASH	1979
ARMENTROUT, M/M Herbert, Rt. 6, Box 93, Jonesboro, TN 37659	HERN	1976
ARMSTRONG, M/M Marcus, 1118 Allen Ave., Knoxville, TN 37912	KNOX	1980
ASBURY,, M/M J. H., Jr., 306 Massey Rd., Lookout Mountain, TN 37350	CHAT	1975
ASHLEY, Mrs. Joda, 206 Signal View St., Chattanooga, TN 37415	CHAT	1982
AUGUSTIN, M/M Anthony J., Route #2, Loretto, TN 38469	BR	1983
AUGUSTIN, Mrs. Karl, Box 246, Loretto, TN 38469	BR	1983
BADDOUR, Mrs. Frank, 203 West End Heights, Lebanon, TN 37087	SEL	1974
BAILEY, Ms. Betty T., 1402 Highcrest Drive, Hixson, TN 37343	CHAT	1983
BAILEY, M/M Joe, 3106 Old Cedar Cv., Memphis, TN 38119	MEM	1983
BAIN, Mrs. Robert L., 306 Castle Heights Avenue, Lebanon, TN 37087	SEL	1968
BAISDEN, Mr. Frank, Rt. 2, Rising Fawn, GA 30738	CHAT	1973
BAKER, Duane E., 1415 Leafhaven Cv., Cordova, TN 38018	MEM	1981
BARCLAY, Mr. Howard E., 112 Gorgas Ln., Oak Ridge, TN 37830	KNOX	1950
BARNWELL, M/M James R., 3308 Navajo Dr., Chattanooga, TN 37411	CHAT	1954
BARR, M/M T Stanley, Rt. 2, Box 475 A-1, Estill Springs, TN 37330	HR	1954
**BASHAM, Mr. Benton, P. O. Box 5, Ooltewah, TN 37363	CHAT	1960
BATES, M/M John, 623 Royal Oaks Pl., Nashville, TN 37205	NASH	1981
BAUMGARDNER, Miss Nita, 100 Netherland Lane Box 11, Kingsport, TN 37620	BRI	1973
BEAN, Dr./Mrs. William J., 3981 Cheryl Dr., Memphis, TN 38116	MEM	1978
BEAVER, M/M Gilbert, 553 Riley Rd., Hernando, MS 38632	MEM	1983
BECK, Ms. Dorothy, 408 Chesterfield, Nashville, TN 37212	NASH	1980
BEHREND, Mrs. Fred W., 10436 Oakmont Drive, Sun City, AZ 85351	HERN	1944
BELL, Mrs. Williiam F., Sr., 4307 Glen Eden Drive, Nashville, TN 37205	NASH	1949
BENTON, Mrs. John K., Apartment 724 Park Manor 115 Woodmont Blvd., Nashville, TN 37205	NASH	1959
BERENS, Miss Violette , & Mrs. Raymond Gose 122 Edgewood Drive, Bristol, VA 24201	BRI	1975
BERNETT, Mrs. David, 4633 Villa Green Drive, Nashville, TN 37215	NASH	1978
BERRY, M/M Vernon C., Route 12 Box 137, Lebanon, TN 37087	SEL	1973
BIBLE, Martha, Rt. 1, Mosheim, TN 37818	GRE	1983
BIERLY, Mr. Micheal Lee, 3825 Bedford Avenue, Nashville, TN 37215	NASH	1963
BIGHAM, Mr. John T., 4171 Kenosha Rd., Memphis, MS 38118	MEM	1951
BILLS, M/M Frank, 5717 Neubert Springs Road, Knoxville, TN 37920	KNOX	1981
BINGHAM, M/M Ronald, Route 8, Box 8726 Belmar Circle, Manchester, TN 37355	HR	1974
BINNS, Mrs. Douglas W., 105 Leake Avenue, Apt. 2205, Nashville, TN 37205	NASH	1966
BIRELEY, Mrs. Catherine Hawkins, Rt. 7, Box 336, Johnson City, TN 37601	HERN	1977
BIVENS, Sandra, 3504 General Bates Drive, Nashville, TN 37204	NASH	1980
BLACK, Mrs. Gladys, 608 DeWitt St., Pleasantville, IA 50225	CORR	1979
BLOODWORTH, Mrs. Frank, 208 West End Heights, Lebanon, TN 37087	SEL	1969
BLUNK, Mr. Donald W., Route 2, Box 284-C, Dover, TN 37058	TAL	1983
BONNELL,, Mr. Joel D., Jr. 2031 Crossgate, Dyersburg, TN 38024	MEM	1982
BOSTICK, Sharon, P. O. Box 12211, Knoxville, TN 37912	KNOX	1981
BOUTON, Mrs. George, 316 West Main Street, Lebanon, TN 37087	SEL	1952
BOYD, M/M James P., 501 Randolph Street, Bristol, VA 24201	BRI	1980
BOYERS, Mrs. Thomas, 1070 Spencer Street, Gallatin, TN 37066	NASH	1952
BOYLES, Mrs. Katherine K., Rt. 9, Box 43, Ringgold, GA 30736	CHAT	1982
BOYLES, M/M William, 202 Bass Rd., Chattanooga, TN 37421	CHAT	1982
BOYS, Ruth, 6507 Westland Dr., Knoxville, TN 37919	KNOX	1982
BRADFORD, M/M Mark, Jr., Royal Oaks Tower Apt. 71-E 4505 Harding Road, Nashville, TN 37205	NASH	1957
BRADSHAW, M/M Paul C., P. O. Box 21592, Chattanooga, TN 37421	CHAT	1978
BRANHAM, MM Glenn, Rt. 1, Box 270-A, Manchester, TN 37355	HR	1983
BRIDGEMAN, Jane, 811 Brookhollow Road, Nashville, TN 37205	NASH	1983
BRITT, Sylvia N., 123 Avalon Tr., Knoxville, TN 37920	KNOX	1979
BRITTON, Mrs. Orland, & Ben Britton, Rt. 3, Box 219, Greeneville, TN 37743	GRE	1983

BROEMEL, Mrs. Catherine Gray, 3517 Crestridge Dr., Nashville, TN 37204	NASH	1980
BROMLEY, Ms. Edith S., 8012 Savannah Lane N.W., Ooltewah, TN 37363	CHAT	1980
BROSTER, M/M Roy, Route 1 108 Rainbow Drive, Tullahoma, TN 37388	NASH	1972
BROWN, Mrs. Aileen P., 2500 Ridgecrest Dr., Chattanooga, TN 37406	CHAT	1983
BROWN, Mr. Claude W., 3731 Charleston Square, Memphis, TN 38122	MEM	1980
BROWN, M/M Elmo H., 3917 S. Mission Oaks Drive, Chattanooga, TN 37412	CHAT	1977
BROWN, M/M James C., 921 Love Lane, Hixsonnooga, TN 37343	CHAT	1983
BROWN, Miss Winnifred E., 1436 Agawela Avenue, Apt. K, Knoxville, TN 37919	KNOX	1969
BROWNE, Mr. Robert Lee, 245 Wagner Place, Suite 340, Memphis, TN 38103	MEM	1977
BROWNING, M/M J. C., 324 Carter Blvd., Elizabethton, TN 37643	HERN	1944
BRYANT, M/M David, Rt. 3, Box 366, Greeneville, TN 37743	GRE	1979
BRYSON, M/M Hoyte, Box 96, Woodbury, TN 37190	NASH	1965
**BUCHANNON, Mr. Denny N., 722 Sampson, Dyersburg, TN 38024	TAL	1969
BULLARD, M/M Ralph T., Jr., 6159 Ridge Way, Douglasville, GA 30135	CHAT	1960
BULLOCK, M/M William O., 4746 Cole Rd., Memphis, TN 38117	MEM	1977
BUMEL, M/M Ed, 311 Dellwood Dr., Lebanon, TN 37087	SEL	1983
BURKHARDT, Dr. John M., 1125 Snowden, Knoxville, TN 37912	KNOX	1981
BURKHART, M/M Patrick, 609 Eastwood Dr., Maryville, TN 37801	KNOX	1979
BURR,, Mr. Griffith C., Jr. 4828 Shady Grove Rd., Memphis, TN 38117	MEM	1980
BUTLER, M/M Dean, 306 Oak Park Drive, Tullahoma, TN 37388	HR	1974
*BUTLER, Mrs. Mary L., 3212 Westonia Dr., Chattanooga, TN 37412	CHAT	1981
BYASSEE, M/M Ed, Rt. 2, Columbia, TN 38401	COL	1974
CAMERON, M/M Douglas W., SPO 1269, Sewanee, TN 37375	CHAT	1982
CAMPBELL, Mrs. Archie, 630 Carter Street, Bristol, VA 24201	BRI	1979
CAMPBELL, M/M Carl W., Jr., Rt. 1, Box 95-A, Birchwood, TN 37308	CHAT	1980
*CAMPBELL, M/M James M., 124 Dana Dr., Oak Ridge, TN 37830	KNOX	1962
CANNON, Melissa, 4425 Westlawn Drive Apt. 8 - 205, Nashville, TN 37209	SEL	1983
CANTRELL, Mrs. James M., 623 N. Tennessee Blvd., Murfreesboro, TN 37130	MURF	1973
CANTWELL, Judge & Mrs. J. L., 1724 Red Bud Lane, Bristol, VA 24201	BRI	1960
**CARNEY, Mr. Frederick T., 1914 Overton Park Ave., Memphis, TN 38112	MEM	1934
CARPENTER, M/M Edward L., P.O.Box 9900, Little Rock, AR 72219	MEM	1960
CARRUTHERS, M/M Douglas, Rt. 1, Box 197A, Greeneville, TN 37743	GRE	1983
*CARTWRIGHT, Mrs. James B., 4533 Park Ave., Memphis, TN 38117	MEM	1973
*CASEY, Mr. Robert, 1533 Wanda, Memphis, TN 38111	MEM	1981
CASH, Mrs. Louise J., 1011 E. Dallas Rd., Chattanooga, TN 37405	CHAT	1982
CASON, M/M Will, 846 Brower St., Memphis, TN 38111	MEM	1978
**CASTLES, Miss Ruth, McKendree Manor Towers, 4343 Lebanon Road, Hermitage, TN 37076	NASH	1952
CHASTAIN, M/M Jim L., 261 Hospital Rd., Canton, GA 30114	CHAT	1983
Chattanooga Nature Center, Rt. 4, Garden Rd., Chattanooga, TN 37409	CHAT	1980
CHICKERING, Dr. Joanne, 3607 Cowden Ave., Memphis, TN 38111	MEM	1978
CHITWOOD, Dr. Howard, Rt. 3, Box 174, Jefferson City, TN 37760	KNOX	1975
CHRIETZBERG, Mrs. James, 1715 Elrod, Murfreesboro, TN 37130	MURF	1971
CHRISTIAN, Mr. Wales, 9208 River Oaks Rd., Harrison, TN 37341	CHAT	1983
CLAIBORNE, Mrs. Barbara T., Route 5, Box 695, Chattanooga, TN 37405	CHAT	1982
CLARK, Miss Beulah, Route 14, Box 257, Cookeville, TN 38501	UC	1958
*CLARK, M/M Cecil J., 1910 Avalon Ave., Chattanooga, TN 37415	CHAT	1973
CLARK, M/M E. Jack, 3390 Austinwood Drive, Memphis, TN 38118	MEM	1975
CLAYTON, M/M Lloyd, RFD #4, Box 175A, Lawrenceburg, TN 38464	BR	1969
CLECKLEY, M/M J. E., P. O. Box 632, Tullahoma, TN 37388	HR	1979
CLEVELAND, Mrs. Raymond, Route 5, Box 65 Nashville Pike, Lebanon, TN 37087	SEL	1974
CLINE, M/M Randall, 5312 Yosemite Tr., Knoxville, TN 37919	KNOX	1981
COBB, Mrs. David A., Route 8 Tea Rose Terrace, Brentwood, TN 37027	NASH	1978
**COFFEY, Mr. Ben B., Jr., 672 Belvedere, Memphis, TN 38107	MEM	1926
**COFFEY, Mrs. Ben B., Jr., 672 N. Belvedere, Memphis, TN 38107	MEM	1931
COFFEY, M/M J. Wallace, 521 Cedar Valley Road, Bristol, TN 37620	BRI	1959
COKE, Mrs. Mary S., 3631 Valley Vista Road, Nashville, TN 37205	NASH	1981
COLLINS, Elizabeth C., 4400 Belmont Park Terrace #110, Nashville, TN 37215	NASH	1981
COLLINS, Dr. & Mrs. John R., 2907 East Brow Rd., Signal Mountain, TN 37377	CHAT	1970
COLLINS, Margaret, 1000 Highland Dr., Knoxville, TN 37912	KNOX	1983
COLTEN, Lee, Cedar Creek Learning Center, Rt. 4, Greeneville, TN 37743	GRE	1983
CONDER, M/M John R., P. O. Box 443, Camden, TN 38320	TAL	1959
COOP, Mr. Charles F., 5102 East Shore Dr., Memphis, TN 38109	MEM	1974
COOPER, M/M Brainard , Jr., 176 Ridge Ave, Chattanooga, TN 37404	CHAT	1978
COOPER, M/M James D., 3759 Turley Drive, Nashville, TN 37211	NASH	1978
CORRELL, Opal T., 901 Meadow Lane, #5, Manchester, TN 37355	HR	1983
COUCH, Mrs. Clay, Sr., 105 S. Tarver Avenue, Lebanon, TN 37087	SEL	1959
COUNCE, Mr. Howard A., 1469 Whiting St., Memphis, TN 38117	MEM	1937
COWARD, Dr. & Mrs. Sam B., Jr., P. O. Box 49456, Algood, TN 38501	TAL	1974
*COX, Dr./Mrs. Clair E., II, 6011 Sweetbrier Cv., Memphis, TN 38119	MEM	1980
COZART, Mrs. Dorothy Draughon, 4401 Scenic Drive, Nashville, TN 37204	NASH	1968
COZY, Dr. Helen B., 752 Darden Place, Nashville, TN 37205	NASH	1978
CRAWFORD, Mrs. Cowan, Route 9, Box 307, Lebanon, TN 37087	SEL	1979
CRAWFORD, Mrs. Elizabeth, Parkes St. 227, Lawrenceburg, TN 38464	BR	1972
CRAWFORD, M/M Paul, Route 4, Gallatin Drive, TN 37066	NASH	1967

*CRAWFORD, Cpt. Robert L., 542dn ORD DET (EODCC), Fort Dix, NJ 08640	CHAT	1981
CREECH, Miss Annalla, 2825 Kenway Road, Nashville, TN 37215	NASH	1958
CRENSHAW, Camille, & Maxey Irwin, 865 Bellevue Rd., C-9, Nashville, TN 37043	NASH	1983
CRISWELL, Mr. William G., Route 4, Box 206, Dyersburg, TN 38024	TAL	1977
CROFT, Mr. Joseph E., Ravenscroft, Rt. 2, Box 565, Scottsville, VA 24590	CORR	1956
CROSSMAN, M/M Lorne, 1870 West Broad, Cookeville, TN 38501	UC	1983
CROWDER, Mrs. Emery, Rt. 5, Box 114, Lawrenceburg, TN 38464	BR	1972
CUMMINS, Catherine, 258 DeLee Drive, Kingsport, TN 37663	TAL	1983
*CURRIE, Michele, 405 Taliwa Dr., Knoxville, TN 37920	KNOX	1983
CYPERT, M/M Eugene, 1006 Darling Ave., Waycross, GA 31501	CORR	1945
D'APOLITO, M/M Thomas, Chestnut Hill Villa, 721 New Due WEst Ave., Apt. H-102, Madison, TN 37115	NASH	1980
DAILY, Mrs. Dollyann, 701 Stevens, Memphis, TN 38116	MEM	1977
DARDEN, Mr. W. G., Box 2237, Hohenwald, TN 38462	TAL	1966
DARLINGTON, Dr. Julian T., 3112 Glenfinnan Rd., Memphis, TN 38128	MEM	1965
DARR, Mr. Edward, 301 Clegg Rd., Walden, TN 37377	CHAT	1983
DAVANT, Miss Mary, 861 N. McLean Blvd., Memphis, TN 38107	MEM	1929
DAVENPORT, Jane, 103 Versailles Apartments, 3000 Hillsboro Road, Nashville, TN 37215	NASH	1983
DAVIDSON, Ms. Kathy, 512 Acorn Court, Chattanooga, TN 37415	CHAT	1980
DAVIS, Ms. Angela, 1715 Skyline Dr., Chattanooga, TN 37421	CHAT	1981
*DAVIS, Marcia, 4154 Jomandowa Ln., Knoxville, TN 37919	KNOX	1976
DeBOLD, M/M Rowan, 756 Georgetown Drive, Nashville, TN 37205	NASH	1983
DeFOE, Mr. Donald H., Great Smoky Mountain National Park, Route 2, Box 322, Gatlingburg, TN 37738	KNOX	1964
DENNY, Mrs. Eddie, 308 Eastland Drive, Lebanon, TN 37087	SEL	1979
DENSFORD, Mr. Jonathon T., 3256 Ancroft Cv., Memphis, TN 38128	MEM	1981
DETLEFSEN, M/M Fred, 204 West End Heights, Lebanon, TN 37087	SEL	1980
*DEVORE, Mr. Jon E., 3499 Graceland Drive # 3, Memphis, TN 38116	TAL	1966
DICKERSON, M/M D. K., 3862 Conahaney Trail, Chattanooga, TN 37406	CHAT	1974
DICKSON, James L., 1209 Holly Hill Dr., Franklin, TN 37064	NASH	1980
DILLENBECK, Mrs. Harold L., Rt. 19, Box 253, Johnson City, TN 37601	HERN	1964
**DINKELSPIEL, Mrs. Henry, 6519 Massey Lane, Memphis, TN 38119	MEM	1957
DINSMORE, Mr. Michael, 123-D Jarman Hollow Road, Palmyra, TN 37142	TAL	1973
DOAK, Miss Ruby, 604 Holston Drive, Gatlinburg, TN 37738	TAL	1957
DORSEY, Ms. Marian R., 408 Chesterfield, Nashville, TN 37212	NASH	1980
DOUGHERTY, M/M Joseph, 1305 Lone Oak Circle, Nashville, TN 37215	NASH	1982
DOUGLAS, Gayle, 923 S. Willow Blvd., Nashville, TN 37215	NASH	1983
DOUGLASS, M/M Zebuson, Wilson County Courthouse Election Commission, Lebanon, TN 37087	SEL	1983
DOVE, Mrs. George, 1801 Seminole Dr., Johnson City, TN 37601	HERN	1966
DOWDY, Mrs. Quentin B., 3630 Sharpe Ave., Memphis, TN 38111	MEM	1967
DOYAL, Mr. John P., 200 Hillcrest Ave., Chattanooga, TN 37411	CHAT	1982
DOYLE, M/M Randall L., 207 Greenleaf St., Chattanooga, TN 37415	CHAT	1982
DREWRY, M/M Jerry, 4444 Dowdy Dr., Antioch, TN 37013	NASH	1983
**DUBKE, Mr. Kenneth H., 8139 Roy Lane, Ooltewah, TN 37363	CHAT	1957
**DUBKE, Mrs. Lillian, 8139 Roy Lane, Ooltewah, TN 37363	CHAT	1970
*DUCHEIN, Miss Annette, 8 Bayview Cir., Ocean Springs, MS 39564	CORR	1961
DUGGER, Mrs. Milbrey, 2835 Kenway Rd., Nashville, TN 37215	NASH	1958
DUNCAN, Christina L., 5088 New Castle Rd., Memphis, TN 38117	MEM	1983
DUNCAN, M/M Hickman, 5406 Hill Road Circle, Nashville, TN 37220	NASH	1978
DUNCAN, Sandra, 3800 West End, Apt. 2, Nashville, TN 37205	NASH	1982
DUNN, Clifton , 1400 Hildreth Drive, Nashville, TN 37215	NASH	1983
EAGER, Mr. Dan, 2715 Westwood Avenue, Nashville, TN 37212	NASH	1982
EARLY, M/M William, Hidden Lakes Estates, Columbia, TN 38401	COL	1980
EARNEST, Mrs. Charles E., 101 Old Indian Hill Trail, Greeneville, TN 37743	GRE	1973
EBAUGH, Evan, P. O. Box 381, Collegedale, TN 37315	CHAT	1983
EGLEY, M/M Bill, Rt. 3, Lawrenceburg, TN 38464	BR	1972
EIKLOR, M/M John, Rt. 11, Box 178, Gray, TN 37615	TAL	1976
ELLER, Mr. Glen D., Rt. 3 Grandview Terrace, Elizabethton, TN 37643	HERN	1956
ELLIS, M/M John O., 4004 Overbrook Drive, Nashville, TN 37204	NASH	1960
ELMORE, M/M Jackie B., Rt. 1, Box 314A, Eubank, KY 42567	CORR	1982
EMBURY, M/M John H., 212 North McLean Blvd., Memphis, TN 38112	MEM	1929 - 1961
ENDRES, M/M Robert O., 3710 Northwood Drive, Memphis, TN 38111	MEM	1983
ENGLISH, Mr. Robert C., 4505 Glendale Place, Nashville, TN 37215	NASH	1983
EPPERSON, Mrs. H. C., 519 Maryland Avenue, Bristol, TN 37620	BRI	1952
EPPS, Mrs. Ruth, 211 Haven Cir., Columbia, TN 38401	COL	1980
ERWIN,, M/M Billy H., Jr. Rt. 2, Box 317, Murfreesboro, TN 37130	MURF	1973
ETHRIDGE, Mr. John J., Capitol Towers Apartment 803, Nashville, TN 37219-1209	NASH	1983
EVANS, Frances, 2518 Lebanon Road, Nashville, TN 37214	NASH	1983
EVANS, Dr. & Mrs. Hillis F., 421 Menees Lane, Madison, TN 37115	NASH	1980 - 1976
FARRELL, Dr. & Mrs. Charles E., 109 S. Bellevue Drive, Nashville, TN 37205	NASH	1954

FARRIS, Mrs. Carter M., Route 2, Rome Pike, Lebanon, TN 37087	SEL	1964
FARRIS, Miss Rachael, 4911 Sewanee Road, Nashville, TN 37220	NASH	1981
FARTHING, M/M Harry H., 100 Sherwood Heights, Elizabethton, TN 37643	HERN	1957
FARVER, Mr. Richard, 546 Owendale Drive, Antioch, TN 37013	NASH	1983
FAY, Ms. Karen L., 100 Dorah Lane #18, Chattanooga, TN 37412	CHAT	1983
FELDMAN, Dr./Mrs. Jesse, 7148 Devine, Bartlett, TN 38134	MEM	1976
FENN, Mrs. Edith W., 100 Northgate Park # 302, Chattanooga, TN 37415	CHAT	1958
FERGUSON, M/M James A., 3090 Joslyn St., Bartlett, TN 38128	MEM	1975
FILLEY, Dr. & Mrs. John, 1501 Murfreesboro Road #2, Nashville, TN 37210	NASH	1981
FINCH, Dr. & Mrs. William C., 6024 Sherwood Drive, Nashville, TN 37215	NASH	1967
*FINNEY, M/M James, 5213 Whitehouse Rd., Knoxville, TN 37919	KNOX	1981
FINTEL, M/M William A., 6 Point Circle Road 4, Lewes, DE 19958	NASH	1972
**FINUCANE, Marion, 1434 Watauga St., Kingsport, TN 37660	KING	1981
**FINUCANE, Mr. T. W., 1434 Watauga St., Kingsport, TN 37660	KING	1945
FISHEL, Mrs. Frances W., 908 Imperial House, Nashville, TN 37205	NASH	1977
*FISHER, M/M Frank L., Box 1201, Morristown, TN 37814	KNOX	1971
FLEISCHER, M/M Raymond J., 708 Newberry Road, Nashville, TN 37205	NASH	1976
FLEMING, Mrs. Gertrude L., P. O. Box 613, Collegedale, TN 37315	CHAT	1972
FLOYD, Mr. Robert, 11524 Nassau, Knoxville, TN 37922	KNOX	1983
FORD, Mr. Robert P., 821 Volunteer Blvd., Knoxville, TN 37916	KNOX	1981
*FORESTA, Mr. Ronald A., & Sally M. Mirick, 7505 Deane Hill Dr., Knoxville, TN 37919	KNOX	1982
FORT, M/M Combs, &Mr. Lawson Fort 1040 Parkwood Terrace, Nashville, TN 37220	NASH	1970
FORT, M/M John, 742 Breelyn Road, Nashville, TN 37205	NASH	1981
FOSTER, M/M J. P., 5817 Fredericksburg Drive, Nashville, TN 37215	NASH	1966
FOSTER, Katherine H., Route 28, Smallman Road, Knoxville, TN 37920	KNOX	1976
FOUCH, M/M David, P. O. Box 1184, Lebanon, TN 37087	SEL	1983
FOWLER, Jo Ann, 551 Mellen Rd., Knoxville, TN 37919	KNOX	1983
FOWLER, Mrs. Linda, Rt. 4, Box 541 Valley Lane, Clinton, TN 37716	KNOX	1979
FOWLER, M/M William B., Jr., 4564 Willow Rd., Memphis, TN 38119	MEM	1978
FRANK, Miss Harriette, 3767 Highland Park Place, Memphis, TN 38111	MEM	1974
FRANKLIN, M/M Don, Rt. 8, Box 8872, Manchester, TN 37355	HR	1982
FRANKUM, Dr. Charles, 441 Goodwyn, Memphis, TN 38111	MEM	1982
**FREEMAN, Mr. George, 2814 Oakland Avenue, Nashville, TN 37212	TAL	1975
FREEMAN, Dr. & Mrs. John R., 3116 North Lockwood Dr., Chattanooga, TN 37415	CHAT	1974
FRENCH, Elizabeth, 36 Ridgeview Drive, Chickasaw, AL 36611	KNOX	1954
FREYE, Mr. J. D., 852 Arden Way, Signal Mountain, TN 37377	CHAT	1983
FULKS, Martha, 3825 Bedford Ave., Nashville, TN 37215	NASH	1983
FULLER, M/M Earl J., 5480 S. Angela Lane, Memphis, TN 38119	MEM	1960
FULLER, M/M H. W., 710 Forest Heights Dr., Knoxville, TN 37919	KNOX	1981
FULTS, Ms. Frances, Box 404, Monteagle, TN 37356	HR	1982
FUNK, Mr. John F., 7216 Afton Dr., Knoxville, TN 37918	KNOX	1980
FUNKHOUSER, Elizabeth, 818 Morningside Apt. 5, Johnson City, TN 37601	HERN	1983
FUQUA, Dr. & Mrs. W. G., Rt. 7, Pulaski Pike, Columbia, TN 38401	COL	1962
GADDIS, Mrs. Eleanore M., 209 W. Vanderbilt Dr., Oak Ridge, TN 37830	KNOX	1978
GAITHER, Ms. Gail & Nora, 5941 Poplar Pike Ext. #12, Memphis, TN 38119	MEM	1979
GARCELON, Mr. Merrill, 5488 Poplar Avenue, Apt. #3, Memphis, TN 38119	MEM	1965
GARRETT, Mrs. Robert, 1625 Highland Ave., Columbia, TN 38401	COL	1974
GASTON, Mrs. Emmett L., 109 Oak Hill Circle, Lebanon, TN 37087	SEL	1957
GATES, Miss Virginia, 3089 Waynoka Ave, Apt.3, Memphis, TN 38111	MEM	1977
GAUT, M/M William King, Rt. 8, Box 362, Greeneville, TN 37743	GRE	1962
*GEISSLER, M/M William, Rt. 6, Box 79, Manchester Rd., Murfreesboro, TN 37130	MURF	1982
GEREN, Miss Genevieve, 475 S. Perkins, #108, Memphis, TN 38117	MEM	1944
GILBERT, Miss Susan H., 110 South Crest Rd., Chattanooga, TN 37404	CHAT	1982
GILLAND, M/M Jim, 5412 Heritage Lane, Kingsport, TN 37664	KING	1978
GILMER, Mr. James M., Jr., & Brice GILMER 957 Bluff View Dr., Knoxville, TN 37919	KNOX	1978
GLADDYS, M/M Paul, 1026 Overton Lea, Nashville, TN 37220	NASH	1983
GLEAVES, M/M Edwin, 212 Boxwood Dr., Franklin, TN 37064	NASH	1982
GOFORTH, M/M Douglas, Box 405, Monteagle, TN 37356	HR	1982
GOINS, Mrs. Lee Roy, Route 2, Box 101, Dunlap, TN 37327	CHAT	1982
GOOCH, M/M Robert D., Jr., 2900 Garden Lane, Memphis, TN 38111	MEM	1973
GOODIN, Mrs. John, 1300 Virginia, Johnson City, TN 37601	HERN	1973
**GOODPASTURE, M/M Henry, 3800 Whitland Ave., Nashville, TN 37205	NASH	1966
GOODPASTURE, Dr. Katherine, 3407 Hopkins Lane, Nashville, TN 37215	NASH	1941
GORE, M/M Charlie, 2505 Blair Blvd., Nashville, TN 37212	NASH	1982
GOVE, Dr. Doris, 4204 Taliluna, Knoxville, TN 37919	KNOX	1980
GRANTHAM, Louise, 3716 Bakertown Rd., Nashville, TN 37211	NASH	1982
GRAVES, M/M James H., Botany Department University of Georgia, Athens, GA 30602	CORR	1979
*GRAY, Dr. & Mrs. Dan R., 5004 Mt. Pleasant Pike, Columbia, TN 38401	COL	1962
*GREEN, Martha E., 4507 Belmont Park Terrace, Nashville, TN 37215	NASH	1980

GREENE, Mrs. Sarah, Meadowview Apts. G-12 801 Del Rio Pikee., Franklin, TN 37064-2114	NASH	1929
GREENE, Miss Mary Elizabeth, 324 Park Street, Bristol, VA 24201	BRI	1973
GREEVER, Dr./Mrs. C. E., 1615 Old Lascassas Rd., Murfreesboro, TN 37130	MURF	1970
GRIESMAN, Mr. Alex, Rt. 3, Box 371, Dayton, TN 37321	CHAT	1978
GRIFFIN, M/M Dewey, Rt.7, Concord Rd., Brentwood, TN 37027	NASH	1981
GRIFFITH, Mr. J. E., 4320 Skyline Dr., Knoxville, TN 37914	KNOX	1971
GRIGGS, M/M Glenn, 114 Guard Dr., Lawrenceburg, TN 38464	BR	1978
GRIGSBY, Betty Jane, 1766 Central, Memphis, TN 38104	MEM	1981
GRIMES, Mr. Samuel A., 4627 Peachtree Cir. Ea., Jacksonville, FL 32207	CORR	1962
GRIMM, M/M Billy C., 5490 Benna Cove, Memphis, TN 38119	MEM	1967
GROSS, Dorothy S., 5126 Sequoia, Memphis, TN 38117	MEM	1980
GRUNDSET, M/M Edgar O., Box 465, Collegedale, TN 37315	CHAT	1981
*GUINN, M/M Joe B., 8382 Davenport Cove, Germantown, TN 38138	MEM	1975
GUSCHKE, M/M Thomas, 113 Taggart Ave., Nashville, TN 37205	NASH	1978
GUTRIDGE, Mrs. W. A., 233 University Ave., Lebanon, TN 37087	SEL	1979
HALE, M/M Bert D., Route 1, Bluff City, TN 37618	BRI	1977
HALE, Mr. Kenneth, Rt. 2, Box 218, Saltville, VA 24370	CORR	1972
HALL, Dr. George A., Dept. of Chemistry West Virginia University, Morgantown, WV 26506	CORR	1962
HALL, Mr. Gordon, Route 4 McCubbins Road, Knoxville, TN 37914	TAL	1979
HALTERLINE, M/M Anthony J., 1919 Bartway Drive, Murfreesboro, TN 37130	SEL	1983
HALVERSTADT, M/M Jim, Arden Place Condominiums, #211, 4400 Belmont Park Terr., Nashville, TN 37215	NASH	1980
HAMMER, M/M Don, 1270 Orchard Rd., Norris, TN 37828	KNOX	1981
HAMMITT, Rebecca, & Stephen Satterfield, Route 1, Box 312, Luttrell, TN 37779	KNOX	1983
HAMMONDS, M/M R. Glenn, 4204 Estes Road, Nashville, TN 37215	NASH	1983
HAMPTON, Dr. & Mrs. John C., Healing Bluff Rd., Chattanooga, TN 37419	CHAT	1983
HANCOCK, Mr. James W., Rt. 1, Box 49 Princeton Rd., Madisonville, KY 42431	CORR	1946
HANDEL, M/M Stephen, 3620 Woodlawn School Rd., Knoxville, TN 37920	KNOX	1978
HANEBRINK, Dr. Earl L., Box 67, Arkansas State University, State University, AR 72467	CORR	1968
HANEY, Mr. J. Christopher, Box 15332, Savannah, GA 31416	CHAT	1981
HANKINS, Mr. David, Rt. 1, Box 1392, Heiskell, TN 37754	KNOX	1981
**HANNABASS, Mr. H. Hayden, 1733 Orchard Court, Kingsport, TN 37660	TAL	1976
HANSON, Mr. Newton, 1301 Highland Dr., Newport, AR 72112	CORR	1941
HANSON, Mr. Thomas L., 22 West 34th Street Keiffton, Reading, PA 19606	KNOX	1983
HARDISON, Miss Louise, 1801 Highland Ave., Columbia, TN 38401	COL	1974
HARPER, Mr. James Marvin, 305 Crestwood Drive, Tullahoma, TN 37388	HR	1979
**HARPER, Mrs. Marjory B., 305 Crestwood Drive, Tullahoma, TN 37388	HR	1973
HARRIS, Barbara, 2225 Pinewood Rd., Nashville, TN 37216	NASH	1978
HARRIS, M/M Jack, 3219 Avoca Road, Bristol, TN 37620	BRI	1983
HARRIS, Mr. Paul C., 4519 Cloverdale Loop, Hixson, TN 37343	CHAT	1982
HARRIS, M/M Ray F., 7514 Savannah Dr., Ooltewah, TN 37363	CHAT	1980
*HARRIS,, Dr. & Mrs. Robert W., III 3811 Taliluna Ave., Knoxville, TN 37919	KNOX	1972
HARRIS, Mr. Van, 435 N. McNeil St., Memphis, TN 38112	MEM	1974
HARSTON, Mr. Thomas N., 3101 Country Meadows Road, Antioch, TN 37013	NASH	1977
HARTIGAN, Mr. Paul D., 200 Hermitage Rd., Knoxville, TN 37920	KNOX	1978
HARTMAN, Mr. Gary, 432 Guess Circle, Chattanooga, TN 37415	CHAT	1980
HASBROUCH, Mr. Charlie, Rt. 17, Rock Spring Rd. Box 83, Kingsport, TN 37664	KING	1981
HASSLER, M/M John D., Route 1, Box 164-A, Byrdstown, TN 38549	TAL	1967
HATCHER, Mr. Robert M., 324 Leopold Rd., Nashville, TN 37211	NASH	1979
HAWKS, Mr. Graham, &Ms. Louie MANN 502 Signal Mountain Blvd., Signal Mountain, TN 37377	CHAT	1983
HAWLEY, Paula B., 510 Commerce St., Loudon, TN 37774	KNOX	1983
*HAYES, Mrs. J. Mitchell, Route 6, Box 219 Pope Lane, Dickson, TN 37055	NASH	1963
HAYNES, M/M W. D., 1014 N. Maple St., Murfreesboro, TN 37130	MURF	1970
HEADRICK, Mrs. W. Vernon, 90 Woodgate Rd., Ringgold, GA 30736	CHAT	1983
*HEERDT, M/M Mark, 1018 Stonewall Dr., Nashville, TN 37220	NASH	1983
HEGLER, M/M Richard, 131 E. Highland Rd., Johnson City, TN 37601	HERN	1981
HEILMAN, Annie, 429 Rivermont Drive, Clarksville, TN 37043	NASH	1983
HEINTZ, Dr./Mrs. Richard, 2171 Cordes Rd., Germantown, TN 38138	MEM	1981
HENDERSON, Mr. Cary R., Route 1, Box 378, White House, TN 37188	TAL	1981
HENDRICKS, Sheila Y., 2830 Azalea Pl., Nashville, TN 37204	NASH	1979
HENRY, Mr. Earl O., Jr., 4487 Post Place, #145, Nashville, TN 37205	NASH	1967
*HERBERT, M/M John S., Rabbit Hill Route 5, Ashland City, TN 37015	NASH	1960
HERNDON, Mrs. Lee R., 500-C West F Street, Elizabethton, TN 37643	HERN	1944
HETTISH, M/M J. Robert, 1018 Lawndale Dr., Murfreesboro, TN 37130	MURF	1967
HETZLER, M/M W. Fred, 4600 Wilson Rd., Signal Mountain, TN 37377	CHAT	1975
HIGGS, Dr. James G., 91 Channing Way, Jackson, TN 38301	MEM	1979

HIGHBAUGH, Mr. David B., 5424 Bluefield Rd., Knoxville, TN 37921	KNOX	1980
HILTON, Miss Esther A., 322 Park Street, Bristol, VA 24201	BRI	1950
HITE, Mrs. Violet W., Box 114, Woodbury, TN 37190	NASH	1978
HIXON, Mr. Frank, 9600 Golf Lakes Tr. #2006, Dallas, TX 75231-5018	CHAT	1980
*HOFF, M/M Ronald H., 2725 Nickle Rd., Knoxville, TN 37921	KNOX	1980
HOLLIS, Mrs. Kay, 331 East Spring Street, Lebanon, TN 37087	SEL	1983
**HOLLISTER, Dr. Robert M., 316 Battle Avenue, Franklin, TN 37064	NASH	1966
HOLT, Dr. & Mrs. B. D., 312 N. Main St., Greeneville, TN 37743	GRE	1983
HOSIER, M/M Robert, 712 W. Spring Street, Lebanon, TN 37087	SEL	1976
HOUK, Mrs. Ann M., 2815 22nd Avenue, S., Nashville, TN 37215	NASH	1976
HOWELL, Dr. & Mrs. Joseph C., 5000 Oak Ridge Highway, Apt. 1401, Knoxville, TN 37921	KNOX	1947
HOWELL, Mary Lee, Box 4395 Station B Vanderbilt University, Nashville, TN 37235	NASH	1982
HOYLE, Susan, 7003 Northshore Drive, Knoxville, TN 37919	KNOX	1965
HUDSON, Mrs. Jack, 310 Lattawoods, Dyersburg, TN 38024	TAL	1966
HUDSON, Mr. Russell A., 310 Lattawoods, Dyersburg, TN 38024	TAL	1979
HUGHES, Dr. C. Richard, 3878 Jill St. NE, Cleveland, TN 37311	CHAT	1982
HUNTER, M/M Richard E., Rt. 6, Box 67, Dilton Mankin Rd., Murfreesboro, TN 37130	MURF	1970
HURLEY, Mr. Don, 3450 Evans road Apartment 141 C, Atlanta, GA 30341	KNOX	1983
HURLEY, Mr. Len, 484 Cherokee Blvd., Knoxville, TN 37919	KNOX	1969
HYNDS, M/M C. H., 112 Nashville Highway, Apt. F4, Columbia, TN 38401	COL	1981
ILARDI, Dr./Mrs. Robert, 2786 North Star Dr., Memphis, TN 38134	MEM	1983
IMHOF, Mr. Thomas A., 1036 Pike Rd., Birmingham, AL 35218	CORR	1949
*INGLES, Mr. Jerry L., S. P. O. 1245, Sewanee, TN 37375	HR	1982
**JACKSON, Dr. Jerome A., Dept. of Zoology, Mississippi State University P. O. Drawer Z, Mississippi State, MS 39762	CORR	1972
JACKSON, Mrs. John Blair, 206 W. 6th St., Columbia, TN 38401	COL	1983
JACKSON, Miss Louise, 5048 Lakeview Drive, Nashville, TN 37220	NASH	1964
**JACOBSON, Mr. Daniel R., 1507 Hickory Valley Rd. Apt. H-62, Chattanooga, TN 37421	CHAT	1970
JAMES, Mrs. C. E., 475 N. Highland, #7H, Memphis, Tn 38122	MEM	1956
JAMES, Mr. Wesley, 120 Newridge Rd., Oak Ridge, TN 37830	KNOX	1983
JANSON, Victoria, 2901 Westmoreland Drive, Nashville, TN 37212	NASH	1983
JENKINS, Mr. Albert M., 2106 Wisteria Dr., Hixson, TN 37343	CHAT	1976
*JENNINGS, Dr. & Mrs. Henry S., 2308 Chickering Lane, Nashville, TN 37215	TAL	1981
JERNIGAN, Dr. & Mrs. William N., 107 Gallion Dr., Columbia, TN 38401	COL	1980
JOHNSON, Mrs. Amy, 318 6th Street, Cookeville, TN 38501	TAL	1958
JOHNSON, Mr. Billy, 303 Signal Mountain Blvd., Signal Mountain, TN 37377	CHAT	1982
JOHNSON, M/M David L., Rt. 1, Box 126, Manchester, TN 37355	HR	1980
JOHNSON, M/M Edwin, 7627 Topside Rd. Rt. 23, Knoxville, TN 37920	KNOX	1983
JOLLY, Mr. Edgar L., Jr., 4006 Vailwood Drive, Nashville, TN 37215	NASH	1983
JONES, Mrs. Jennings, 204 Apollo Dr., Murfreesboro, TN 37130	MURF	1971
JONES, M/M John Paul, 3421 Hopkins Lane, Nashville, TN 37215	NASH	1952
JONES, Col. & Mrs. Joseph W., Jr., Route 1, Box 207 Pate Road, Newbern, TN 38059	TAL	1975
JONES, Mrs. Katherine P., 806 Hillrise Blvd., Johnson City, TN 37601	HERN	1966
JONES, M/M Ransom, 726 Cherokee, Murfreesboro, TN 37130	MURF	1980
JONES, M/M Russell A., 6418 Arrowbrook Lane #1, Memphis, TN 38134	MEM	1975
JONES, M/M Walk C., III, 259 E. Cherry Circle, Memphis, TN 38117	MEM	1981
JONES, Mr. William J., Box 5172 TTU, Cookeville, TN 38501	TAL	1983
**JORDAN, Mr. O. Ray, Department of Biology Box 5063 TTU, Cookeville, TN 38501	UC	1966
**JOSHLIN, M/M W. R., 1794 Riverdale Road, Germantown, TN 38138	MEM	1980
JOYCE, Mrs. Robenia, 400 Woods Dr., Columbia, TN 38401	COL	1981
JUSTICE, M/M John W., Rt. 9. Justice Rd., Murfreesboro, TN 37130	MURF	1973
JUSTISS, Mr. Alan K., 1814 Sweetbriar, Nashville, TN 37212	NASH	1981
KAFKA, M/M Lenny, 1607 Oaken Trail, Chattanooga, TN 37421	CHAT	1983
KEETON, Mr. Luther F., 80 Eastland Dr., Memphis, TN 38111	MEM	1940
KEETON, Susan, 4737 Sequoia Rd., Memphis, TN 38117	MEM	1982
KELLAR, Ms. Alice S., 519 West 1st Ave., Lenoir City, TN 37771	KNOX	1981
KELLY, Ms. Barbara, & Mr. Robert B. Pyle 3524 Pinellas Ln., Chattanooga, TN 37412	CHAT	1978
KING, Mr. Edward M., 595 Shotwell, Memphis, TN 38111	MEM	1950
KING, M/M P. Glenn, Box 282 Sunset Bluffs, Monteagle, TN 37356	HR	1967
KISNER, M/M James B., 9 Mary Ann Dr., Memphis, TN 38117	MEM	1977
**KLEIN, Ms. Starr T., 217 Arrow Dr., Signal Mountain, TN 37377	CHAT	1980
KNAUTH, Mrs. Herman G., 4321 Brush Hill Road, Nashville, TN 37216	NASH	1955
KNIGHT, Mrs. Margaret , 412 N. Main St. Pleasant Manor Apt. 3, Mt. Pleasant, TN 38474	COL	1983
KNIGHT, Mr. Richard Lee, 804 N. Hills Dr., Johnson City, TN 37601	HERN	1977
KOCH, Sarah Elizabeth, 23 Y Georgetown 5025 Hillsboro Road, Nashville, TN 37216	NASH	1983

*KOELLA, Mr. Jon A., P. O. Box 10493, Knoxville, TN 37919	KNOX	1967
KOLB, M/M John L., 419 Fairfield Circle, Memphis, TN 38117	MEM	1975
KOPP, Mrs. R. G., 1622 West End Drive, Lebanon, TN 37087	SEL	1983
KRAMER, Dr. & Mrs. Lee F., 321 Shepard Hills Drive, Madison, TN 37115	NASH	1966
KURTZ, M/M William L., 3701 Skylark Trail, Chattanooga, TN 37416	CHAT	1982
*KUYKENDALL, Dr. & Mrs. Sam J., 1394 Hatcher Lane, Columbia, TN 38401	NASH	1976
KYLE, Ms. Joy, Hobbs #2, Lot #12, Kingsport, TN 37664	HERN	1974
LACY, Miss Beth, 3129 McClure Lane, S. E., Knoxville, TN 37920	KNOX	1955
LAGERBERG, Mr. Gregg N., 301 Chesire Dr. #17, Knoxville, TN 37919	KNOX	1981
LAMB, Mrs. John S., Lake Road, Dyersburg, TN 38024	TAL	1963
LASSITER, Ms. Mildred, 1216 Eastwood Drive, Cookeville, TN 38501	UC	1976
LATREMORE, M/M Fred S., 1030 Westwood Drive, Tullahoma, TN 37388	HR	1978
LAVELY, M/M Horace T., Jr., 5928 Sedberry Road, Nashville, TN 37205	NASH	1978
LAY, Dr. & Mrs. Allyn, Pulaski Pike, Columbia, TN 38401	COL	1981
LEE, Mr. Mike, Route 1, Box 667, Bon Aqua, TN 37025	TAL	1981
LEGGETT, M/M Kenneth, P.O.Box 331, Dyersburg, TN 38024	MEM	1967
LENHERT, Dr. & Mrs. Galen, 3109 Overlook Drive, Nashville, TN 37212	NASH	1982
LEONARD, Mrs. Avonelle R., 69 Lynnbrook Cir., Chattanooga, TN 37415	CHAT	1983
*LEVY, M/M Ralph, Jr., 6125 Green Meadows, Memphis, TN 38119	MEM	1980
LEWIS, Ms. Carol, Warner Park Village F84 21 Vaughn's Gap Road, Nashville, TN 37205	NASH	1980
LEWIS, M/M Marshall, 155 Cherry Rd., Memphis, TN 38117	MEM	1974
LEWIS, M/M Richard, Rt. 3, Box 470, Bristol, TN 37620	HERN	1974 - 1980
LOCHRIDGE, M/M Bedford, 914 Woldridge Dr., Columbia, TN 38401	COL	1974
LOHREY, M/M Sherwood, 595 W. Clover Dr., Memphis, TN 38119	MEM	1983
LUCKADO, Mrs. Tom R., 937 McKellar Drive, Tullahoma, TN 37388	HR	1970
LURA, Dr. & Mrs. Richard, 102 Terrace Ct., Apt. 6-B, Johnson City, TN 37601	HERN	1973
LYLES, M/M Henry, Route 6, Columbia, TN 38401	COL	1974
LYNN, Mrs. R. E., 5690 Sherry Ln., Ooltewah, TN 37363	CHAT	1951
LYON, M/M Charles A., 4002 Wallace Lane, Nashville, TN 37215	NASH	1975
*LYONS, M/M Robert S., 600 Marr Dr., Signal Mountain, TN 37377	CHAT	1983
MacLEOD, Marguerite, Rt. 3, Box 247A, Chuckey, TN 37641	GRE	1983
MacMILLAN, Mrs. Portia R., 3201 Overlook Drive, Nashville, TN 37212	NASH	1965
MAGEE, M/M Donald, 1441 Indian Place, Murfreesboro, TN 37130	MURF	1981
*MANIER, Mr. William R., P. O. Box 15668, Nashville, TN 37215	NASH	1982
MANLEY, Mrs. Frances W., 10317 Long Rd., Arlington, TN 38002	MEM	1961
MANN, M/M E. L., 110 Springer Rd., Lawrenceburg, TN 38464	BR	1983
**MANN, Mrs. Margaret Louise, P. O. Box 140038, Nashville, TN 37214	NASH	1966
MARCROM, H. D., 433 W. Fort St., Manchester, TN 37355	HR	1974
MARTIN, Rev. & Mrs. John L., Rt. 9, Box 147 641 Ridgefield Rd., Elizabethton, TN 37643	HERN	1971
MARTIN, Miss Mary Lee, 2136 Acklen Avenue, Nashville, TN 37212	NASH	1974
MASON, M/M James D., 2115 Terrace Ave., S. W., Knoxville, TN 37916	KNOX	1981
MASUOKA, Dr. & Mrs. Jitsuichi, 2609 Natchez Trace, Nashville, TN 37212	NASH	1971
MATHEWSON, Mr. Dave, Jr., P. O. Box 1021, Collegedale, TN 37315	CHAT	1982
MAY, Dr. Jonathan E., 2517 W. Linden Avenue, Nashville, TN 37212	NASH	1982
*MAYFIELD, Dr. & Mrs. George R., Jr., Sunnyside Dr., Columbia, TN 38401	COL	1961
**MAYFIELD, Mrs. George R., Sr., c/o Dr. George R. Mayfield, Jr., Maury County Hospital, Columbia, TN 38401	NASH	1916
MAYNARD, Jane Cole, 5742 Hillsboro Road, Nashville, TN 37215	NASH	1978
*McALISTER, Margaret H., 409 Leake Avenue, Nashville, TN 37205	NASH	1983
McCAMEY, Dr. Franklin, 4676 Andover Court, Atlanta, GA 30360	CORR	1931
McCONNELL, M/M Chester, Rt. 6, Lawrenceburg, TN 38464	BR	1981
McCOY, Mr. Toby, Box 534 Peabody College, Nashville, TN 37203	NASH	1983
McCRARY, Dr. Charles W., 1561 Vinton, Memphis, TN 38104	MEM	1980
McCRARY, Henrietta, Box 57, Woodbury, TN 37190	NASH	1983
McCULLOUGH, M/M J. D., 4712 Murray Hills Dr., Chattanooga, TN 37416	CHAT	1977
McDOWELL, Regenia M., 510 Heritage Drive #44, Madison, TN 37115	MURF	1980
McFARLAND, Dr. & Mrs. Sam B., 242 East Spring Street, Lebanon, TN 37087	SEL	1966
McFARLIN, M/M Larry, 2265 Racquet Club Dr., Murfreesboro, TN 37130	MURF	1981
McGEE, Mr. G. Sanford, P. O. Box 522, Monteagle, TN 37356	HR	1970
McGOWAN, Mrs. William F., 401 Bowling Avenue #66, Nashville, TN 37205	NASH	1982
McGOWN, M/M George W., 238 Tusculum Dr., Oak Ridge, TN 37830	KNOX	1958
McKEE, M/M W. Reid, 1727 Cherokee Drive, Lebanon, TN 37087	SEL	1972
McLAUGHLIN, Dr. & Mrs. Joe, 3201 New Towne Road, Antioch, TN 37013	NASH	1978
*McLAUGHLIN, Mr. John M., 3205 New Town Road, Antioch, TN 37013	NASH	1978
McLEAN, Mr. H. Kenneth, 115 Judith Dr., Knoxville, TN 37920	KNOX	1981
McLEROY, M/M Ralph, 3724 Koewee, Knoxville, TN 37919	KNOX	1965
McMAHAN, M/M Michael A., 1132 Ridge Top Dr., Chattanooga, TN 37421	CHAT	1981
McMILLIAN, M/M Melville, Rt. 2, Lascassas, TN 37085	SEL	1970
McNEES, Mrs. Mary Lee, 3873 Central Ave., Memphis, TN 38111	MEM	1980
McNEIL, Mrs. Guy, 712 Piedmont, Bristol, VA 24201	BRI	1959
McNUTT, M/M William P., Jr. 2935 Valley View Rd., Knoxville, TN 37917	KNOX	1974

McPHERSON, Mr. Charles E., Rt. 1, Box 522, Brighton, TN 38011	MEM	1951
McWHORTER, Mrs. J. H., 3816-B Westwind Circle SW, Huntsville, AL 35805	MEM	1946
MEADORS, M/M Howard, 109 Cleveland Rd., Rossville, GA 30741	CHAT	1958
MEDLEY, M/M Lee W., Rt. 2, Box 173 B, Hillsboro, TN 37342	HR	1982
MEEKS, Dr./Mrs. Gregory, 2236 Mangum Rd., Memphis, TN 38134	MEM	1978
*MENGEL, M/M J. T., Carroll Woods, Apt. 113, Chapel Hill, NC 27514	KNOX	1955
METHVIN, M/M Ray E., Box 160, Loretto, TN 38469	BR	1983
MILBURN, M/M Rocky, Route 4 Petway Road, Ashland City, TN 37015	NASH	1983
MILLER, Dr. & Mrs. Clay, Hillcrest Ave., Columbia, TN 38401	COL	1982
MILLER, Dwight, 398 Ellsworth, Memphis, TN 38111	MEM	1981
MILLER, Ethelyn D., 707 Fairway Dr., Elizabethton, TN 37643	HERN	1983
MILLER, M/M George R., Route 2, Box 198-E-10, Fairview, TN 37062	NASH	1969
MILLER, M/M Herbert S., 801 Piedmont Street, Bristol, TN 24201	BRI	1958
MONROE, Dr. Burt L., P. O. Box 23447, Anchorage, KY 40223	CORR	1969
MOORE, Miss Nelle, 275 Palisade Ave., Memphis, TN 38111	MEM	1944
MOORE, M/M Robert E., Route 1, Box 2074 Elmwood Drive, Rockford, TN 37853	KNOX	1983
*MOOSE, M/M Foster, 300 Leonora Dr., Memphis, TN 38117	MEM	1978
MOREHEAD, Dr. Maurice, 77 Davis Avenue, Cookeville, TN 38501	TAL	
MORGAN, M/M Thomas N., 1043 Brad St., Cleveland, TN 37311	CHAT	1983
MORTON, M/M James, Rt. 11 Hill Road, Knoxville, TN 37918	KNOX	1983
MOULTON, Mr. R. S., 840 Haley Rd., Kittery, ME 03904	CORR	1983
*MOYERS, M/M J. E., Box 397, Collegedale, TN 37315	CHAT	1982
**MUDGE, Mr. E. W., Jr., 3217 Republic Bank Tower, Dallas, TX 75201	CORR	1967
MULLINS, Mary Kate, 1455 Rosemary Lane, Memphis, TN 38104	MEM	1978
MULLINS, Mrs. Stephen, 672 Durion Court, Sanibel Island, FL 33957	HERN	1982
NAPIER, Mrs. John B., 1009-B Alcia Ln., Columbia, TN 38401	COL	1981
NEIDERT, M/M Edward, Box 133, Loretto, TN 38469	BR	1980
NEIDERT, M/M William Royce, Rt. #1, Box 97-A, Loretto, TN 38469	BR	1982
NELSON, Mrs. H. C., 4107 Anderson Ave., Signal Mountain, TN 37377	CHAT	1966
NESBIT, Mrs. Robert H., P.O.Box 34395, Bartlett, TN 38134	MEM	1983
NEVIUS, M/M Richard, Rt. 6, Box 348, Greeneville, TN 37743	GRE	1937 - 1945
NEW, Dr. John, 1312 Avonmouth Rd., Knoxville, TN 37914	KNOX	1981
NEWTON, M/M Edward, 394 Roseland Place, Memphis, TN 38111	MEM	1979
NEWTON, M/M Richard, 522 Indian Lake Rd., Hendersonville, TN 37075	NASH	1981
NICHOLS, Mrs. Robert C., 4621 Franklin Rd., Nashville, TN 37220	NASH	1967
**NICHOLSON, Mr. Charles P., P. O. Box 402, Norris, TN 37828-0402	KNOX	1971
NICHOLSON, M/M E. L., Jr., 6806 Haverhill Dr., Knoxville, TN 37919	KNOX	1983
*NIXON, Anne H., 10 Peach Blossom Square, Nashville, TN 37205	NASH	1982
**NOLAN, Mrs. Sara, 2017 Sweetbriar Ave., Nashville, TN 37212	NASH	1970
NORFLEET, M/M Edcois, 2708 Donna Hill Dr., Nashville, TN 37214	NASH	1981
NORMAN, Mr. James L., 502 N. 14th, Muskogee, OK 74401	CORR	1953
NORRIS, Dr. & Mrs. Raymond C., 4021 Sunnybrook Drive, Nashville, TN 37205	NASH	1965
O'NEIL, Dr. A. W., P. O. Box 586, Falfurrias, TX 78355	CORR	1961
ODOM, Dr. and Mrs. E. P., 1700 E. Main St., Murfreesboro, TN 37130	MURF	1970
*ODOM, Mr. Tom, 3911 Inwood Drive, Kingsport, TN 37664	TAL	1974
ORBAN, Mrs. Patricia Moore, 4 Eastate Drive, Quincy, IL 62301	MEM	1931
ORLEANS, Mrs. S. P., 7700 Gleason Rd. Apt. 4-D, Knoxville, TN 37919	KNOX	1949
ORR, Dr. & Mrs. Marcus W., 960 Audubon Drive, Memphis, TN 38117	MEM	1983
OSBORNE, Mrs. Joe, 1525 Robin Hood Lane, Johnson City, TN 37601	HERN	1973
OTTENFELD, M/M C. T., 100 Netherland Lane #333, Kingsport, TN 37660	BRI	1966
OVERMAN, Mrs. W. J., Jr., 136 Fairways Drive, Hendersonville, TN 37075	SEL	1977
OVERTON, Mrs. Holly, 3316 Bunker Hill Dr., Knoxville, TN 37920	KNOX	1947
OWEN, Mrs. Edward A., P. O. Box 144, Williston, TN 38076	TAL	1981
OWEN, M/M George, Jr., 1827 York Avenue, Memphis, TN 38104	MEM	1978
*OWEN, M/M J. B., 2930 North Hills Blvd., Knoxville, TN 37917	KNOX	1947
OWEN, Mrs. Joan G., 648 Rozelle, Memphis, TN 38104	MEM	1981
PALMER-BALL, Mr. Brainard, Jr., 8207 Old Westport Rd., Louisville, KY 40222	NASH	1983
PAPACHRISTOU, Dr. Gerald, 2858 Shelley Cove, Memphis, TN 38115	MEM	1975
**PARDUE, M/M Paul S., Rt. 23 4415 Beechwood Rd., Knoxville, TN 37920	KNOX	1953
PARKER, Miss Anna Mary, P. O. Box 15, Monteagle, TN 37356	HR	1976
PARKER, M/M F. Milton, 1111 Ridgecrest Rd., Johnson City, TN 37601	HERN	1982
PARKS, Mr. Johnny T., 1610 East 17th St., Chattanooga, TN 37404	CHAT	1979
PARMER, Mr. Henry E., 5538 Oakmont Circle, Nashville, TN 37209	NASH	1955
PARR, Miss Violet, Rt. 1, Afton, TN 37616	GRE	1979
PARSONS, Mrs. Clifford, 909 W. 7th St., Columbia, TN 38401	COL	1980
PATRICK, M/M Oscar, 4641 Villa Green Dr., Nashville, TN 37215	NASH	1969
PATTERSON, Martha L., 1342-B Blue Lake Way, Bowling Green, KY 42101	NASH	1981
PATTERSON, Mr. Thomas K., 426 Academy Avenue, Dublin, GA 31040	CHAT	1981
PATTON, Dr. John, 2214 Riley Rd., M. T. S. U., Murfreesboro, TN 37130	MURF	1970
**PAYNE, Mr. George R., Jr., 6643 Monmouth Drive, Memphis, TN 38119	MEM	1970
PEAKE, Dr. & Mrs. Richard H., Clinch Valley College, Box 28, Wise, VA 24293	CORR	1964
PEEBLES, M/M J. H., 310 Old Fort Street, Tullahoma, TN 37388	HR	1981

PEEPLES, M/M William P., & Rob Peeples, 150 Bendel Circle, Memphis, TN 38117	MEM	1978
PELLETT, Mr. Tom, 2310 Evelyn, Memphis, TN 38104	MEM	1982
PERRY, M/M Don, P. O. Box 110422, Nashville, TN 37222-0422	NASH	1983
PERSINGER, H. R., 604 Belle Glade Ln., Knoxville, TN 37923	KNOX	1983
PETERS, Mrs. Suevelyn N., 761 Elysian Fields Rd., Nashville, TN 37204	NASH	1979
PETERSON, Dr. Clell T., Box 2364 Univresity Station, Murray, KY 42071	CORR	1971
**PETTINGILL, Dr. Olin Sewall, Jr., P. O. Box 97, Wayne, ME 04284	CORR	1939
PHILLIPS, Dr. Allan R., Reforma 825-A, College Chapultepec San Nicolas de los Garza, 66450 Nuevo Leon, MEXICO	CORR	1943
PHILLIPS, M/M Charles L., 2495 Shennandoah Dr., Chattanooga, TN 37421	CHAT	1975
PITTS, Dr. & Mrs. T. David, Biology Department University of Tennessee at Martin, Martin, TN 38237	TAL	1965
POPE, M/M Ray, 221 West Forest Avenue, Lebanon, TN 37087	SEL	1980
PORTER, M/M Richard, 507 32nd Ave., S., Nashville, TN 37212	NASH	1983
PORTER,, M/M Robert, Jr. 1009 Bluebird Lane, Memphis, TN 38116	MEM	1977
POTTER, Mary Ann, 6102 Clark Rd., Harrison, TN 37341	CHAT	1971
POWELL, Mr. Albert L., Jr., Rt. 1, Box 186, Maceo, KY 42355	CORR	1934
POWELL, Mrs. Jean, Route 1, Box 504, Bristol, TN 37620	BRI	1983
**PRESSNELL, Mr. Allen, Rt. 5, Box 261, Columbia, TN 38401	NASH	1983
PRESSNELL, M/M Allen, Route 5 Box 261, Columbia, TN 38401	COL	1976
**PRESSNELL, Mrs. Diane, Rt. 5, Box 261, Columbia, TN 38401	NASH	1983
PRESSNELL, Mrs. Polly, 2718 Gray Circle, Columbia, TN 38401	COL	1980
PRICE, Mrs. David, Jr., 1954 Old Hickory Blvd., Brentwood, TN 37027	NASH	1970
PRICE, Master John, 122 38th Avenue, North, Nashville, TN 37209	NASH	1982
**PRICHARD, Mr. Mack, 2611 West End Ave., Room 140, Nashville, TN 37203	NASH	1967
PUCKETT, M/M E. Powell, 112 Amherst Ln., Oak Ridge, TN 37830	KNOX	1983
PURYEAR, M/M William A., Windsor Towers #910, 4215 Harding Place, Nashville, TN 37205	NASH	1958
QUAY, Mrs. Dorothy, 205 Boyd St., Johnson City, TN 37601	HERN	1981
QUEENER, Elizabeth M., 507 Bellevue Drive East, Nashville, TN 37205	NASH	1978
QUINN, Mr. Yancy, Jr., 4451 Sequoia Road, Memphis, TN 38117	MEM	1972
RADIN, M/M Maury, P. O. Box 171432, Memphis, TN 38117	MEM	1978
RAGLAND, Miss Ella H., 920 N. Laffayette, Brownsville, TN 38012	MEM	1945
RAMM, M/M Heinrich J., 606 Larrymore St., Manchester, TN 37355	HR	1974
RANNELS, Stephen and Sharon, 1900 Rosewood, Apt. 9, Nashville, TN 37212	NASH	1982
RAST, Martha, 778 Chatwood Coveue #3, Memphis, TN 38122	MEM	1983
RATLEDGE, M/M Doug, 1506 Sun Valley Dr., Greeneville, TN 37743	GRE	1977
RAY, Emilie R., 5708 Duquaine Rd., Nashville, TN 37205	NASH	1983
RAYE, M/M Larry D., 4020 Sunnybrooke, Nashville, TN 37205	NASH 1976 –	1980
REEVES, Mr. Mark E., 9015 Ten Mile Road #85, Knoxville, TN 37923	KNOX	1980
REID, Mr. Jeffery, 212 Piedmont Drive, Lebanon, TN 37087	SEL	1979
REID, Mr. Robert R., Jr., 2616 Mountain Brook Parkway, Mountain Brook, AL 35223	CORR	1972
RENFRO, Mr. James, 109 White Oak Drive, Lake Jackson, TX 77566	CORR	1983
*RENTSCHLER, M/M George H., Jr., 8300 Sawyer Brown Rd. K304, Nashville, TN 37221	NASH	1980
RESTIVO, M/M Ernest J., 1248 E. Crestwood Dr., Memphis, TN 38119	MEM	1968
REYNOLDS, M/M A. E., 807 Maple, Bristol, TN 37620	BRI	1958
REYNOLDS, Virginia, 4241 Waymar Dr., Memphis, TN 38117	MEM	1981
RICH, Mrs. C. W., 304 Edgeview Dr., Nashville, TN 37211	NASH	1983
RICHARDS, Mrs. L. D., 1921 Moran Dr., Nashville, TN 37210	NASH	1982
RICHMOND, M. R., 519 N. Jefferson Avenue, Cookeville, TN 38501	UC	1983
RIDDLE, M/M Henry, Rt. #2, Loretto, TN 38469	BR	1972
RIGGINS, M/M John N., 7408 Dunaway Drive, Nashville, TN 37221	TAL	1969
ROACH, M/M Robert C., 1823 Clayton Dr., Chattanooga, TN 37421	CHAT	1980
ROARK, Mrs. Martha L., 23 Sevier Street, Memphis, TN 38111	MEM	1973
**ROBBINS, Mr. Chandler S., 7900 Brooklyn Bridge Rd., Laurel, MD 20810	CORR	1955
ROBERTS, Mr. Herbert W., Route 3 Fall Creek Falls State Park, Pikeville, TN 37367	TAL	1976
ROBERTS, Wesley, & Nancy FLOWERS 1112 Battery Lane, Nashville, TN 37204	NASH	1983
ROBINSON, Mr. Peter C., 3109 Greenwich Ave, Chattanooga, TN 37415	CHAT	1982
RODDY, M/M Bob, 1821-A Cedar Lane, Nashville, TN 37212	NASH	1983
ROGERS, Mr. David P., 7123 Riverwood, Germantown, TN 38138	MEM	1980
ROGERS, Mrs. Erma L., Rt. 1, Box 192, Hillsboro, TN 37342	HR	1976
ROLLINS, M/M Charles D., 3120 Beechrun, Memphis, TN 38128	MEM	1975
ROSANES, Ms. Nancy Lynne, 113 Hedgewood Dr., Chattanooga, TN 37405	CHAT	1982
ROSENBACH, Ms. Patricia Ann, 434 Whitehall Rd., Chattanooga, TN 37405	CHAT	1982
RUDD, M/M Robin, 4611 Davidson Rd., Chattanooga, TN 37421	CHAT	1983
RYTHER, M/M Eugene M., 905 Sterling Ave., Chattanooga, TN 37405	CHAT	1981
SANDERS, M/M Kenneth, Rt. 28, Sevierville Pike Box 203, Knoxville, TN 37920	KNOX	1955
SANDS, Mrs. Lada, 1101 Woodview Avenue, Memphis, TN 38117	MEM	1975
SATTERFIELD, Mr. Stephen, Rt. 1, Luttrell, TN 37779	KNOX	1983
SATTERWHITE, M/M John, Rt. 7, Columbia, TN 38401	COL	1974

SAVAGE, Dr. Alice, 1005 Clearview Drive, Nashville, TN 37205	SEL	1982
SAWYER, Mrs. Marguerite, 604 Estes Ave., Nashville, TN 37215	NASH	1962
SCHELL, Mr. Edward H., 2514 Browns Mill Road, Johnson City, TN 37601	HERN	1975
SCHILLER, Mrs. Henry A., 3572 Allendale Road, Memphis, TN 38111	MEM	1956
SCHREIBER, M/M Edwin D., Sr., 3518 Pleasant Valley Rd., Nashville, TN 38204	NASH	1963
**SCHREIBER, Mr. E. Dan, Jr., 5448 West Sheena Drive, Glendale, AZ 85306	NASH	1960
SCOTT, M/M Leland G., Hickory Harbor Rt. 3, Box 247, Gallatin, TN 37066	NASH	1973
SCURLOCK, William H., 3722 Richland Ave., Nashville, TN 37205	NASH	1975
SEARL, M/M Edwin N., 932 Kevin Rd., Knoxville, TN 37923	KNOX	1982
SEE, M/M Billy, 1007 West Street, Lebanon, TN 37087	SEL	1982
SELLARS, Mrs. John W., 122 Greenlawn Avenue, Lebanon, TN 37087	SEL	1969
SENTER, Rev. & Mrs. William F., 1406 East Peace Street, Canton, MS 39046	SEL	1968
SHAFFER, Mr. Mike, Box 653, Bristol, TN 37620	BRI	1983
SHARP, M/M A. Boyd, 245 Peters Rd., Knoxville, TN 37919	KNOX	1968
SHARP, Mr. Vernon, Jr., 1808 Wilson Pike, Franklin, TN 37064	NASH	1921
SHARP, Mrs. Walter, Rt. 2, Beech Creek Rd., Brentwood, TN 37027	NASH	1952
SHARPLESS, Miss Dorothy E., 201 Bogart Drive, Apt. 14, Sevierville, TN 37862	KNOX	1957
SHAVER, Dr. & Mrs. David C., 485 Kinsman, Memphis, TN 38119	MEM	1979
SHELTON, M/M H. Clay, 4858 Shady Grove Road, Memphis, TN 38117	MEM	1979
SHELTON, M/M Wayne, Rt. 1, Pelham, TN 37366	HR	1978
SHEPARD, Nancy R., 939 South Briarcliff Circle, Maryville, TN 37801	KNOX	1983
SIGEL, M/M Harry, 118 West Valley Street, Abington, VA 24210	BRI	1976
SIMBECK, M/M Don K., Rt. #2, Box 3-A, Loretto, TN 38469	BR	1972
SIMMERS, Mr. Richard, Route 6, Box 170, Cookeville, TN 38501	UC	1978
SIMMS, Mrs. Beth, 2404 Sherrod Rd., Knoxville, TN 37920	KNOX	1978
SIMPSON, Dr. Marcus, Jr., 10 Elmstead Place, Chapel Hill, NC 27514	CORR	1961
SIMS, M/M Joseph, 1311 Hayne Road, Memphis, TN 38119	MEM	1981
SKIPPER, Mrs. Carlos, 808 Murrell Lane, Apt. 2, Signal Mountain, TN 37377	CHAT	1975
SKLAR, Dr. Marshall O., 66 Monroe Apt. 1204, Memphis, TN 38103	MEM	1980
SLIGER, Mrs. Henry L., 208 S. Germantown Rd., Chattanooga, TN 37411	CHAT	1954
SMATHERS, M/M Hugh, 128 Asbury Ln., Gatlinburg, TN 37738	KNOX	1976
SMITH, Miss Alice H., Route 1, Box 323, Covington, TN 38019	MEM	1933
SMITH, Dr. Arlo I., 3724 Oakley Avenue, Memphis, TN 38111	MEM	1960
SMITH, Mrs. Arlo I., 3724 Oakley Avenue, Memphis, TN 38111	MEM	1953
SMITH, Mrs. Arthur S., 100 Otari Drive, Route 14, Kingsport, TN 37664	TAL	1960
SMITH, Dr. Charles, Laboratory of Ornithology Cornell University, Ithaca, NY 14850	CORR	1963
SMITH, M/M Ernest, 1115 E. Northfield Blvd., Murfreesboro, TN 37130	MURF	1981
SMITH, M/M Louis F., 3809 Riverview Rd., Knoxville, TN 37914	KNOX	1954
SMITH, M/M Martin, Guill Road, Mt. Juliet, TN 37123	SEL	1983
SMITH, Rosamary, 6915 Sentinel, Harrison, TN 37341	CHAT	1983
SMITH, M/M Stephen H., 1906 Snowden, Memphis, TN 38107	MEM	1979
SNAPPER, James and Joyce, 2813 Hillside Dr., Nashville, TN 37212	NASH	1982
SNOWDEN, M/M J. W., Route 5, Box 320, Somerville, TN 38068	MEM	1981
SOWELL, Miss Maude, 207 W. 6th St., Columbia, TN 38401	COL	1981
SPECK, Mrs. Hubert H., 228 East Spring Street, Lebanon, TN 37087	SEL	1974
SPEES, Dr. & Mrs. Royal B., P. O. Box 356, Greeneville, TN 37743	GRE	1962
SPENCE, Alberta, 1915 Eagle St., Murfreesboro, TN 37130	MURF	1980
SPENCE, Mrs. C. C., 3610 Cowden, Memphis, TN 38111	MEM	1978
*SPOFFORD, Dr. Walter S., Box 5, Rancho Aguila, Portal, AZ 85632	CORR	1981
**STALLINGS, Miss Pat, 406 North 17th St., Nashville, TN 37206	NASH	1970
STAMM, Mrs. F. W., 9101 Spokane Way, Louisville, KY 40222	CORR	1946
STANFORD, Mrs. H. B., Route 2, Box 300, Taylorsville Road, Lebanon, TN 37087	SEL	1974
STEDMAN, M/M Stephen, Rt.6, Pinewood Rd., Franklin, TN 37064	NASH	1979
STEPHENS, Miss Ella, Box 35, Star Route, Farner, TN 37333	TAL	1965
STERLING, Helen W., 418 Page Rd., Nashville, TN 37205	NASH	1978
STEWART, Mrs. David, 106 Green Valley Blvd., Franklin, TN 37064	NASH	1978
STIDOLPH, Sister Margarita, 4792 Walnut Grove Road, Memphis, TN 38117	MEM	1978
STILES, M/M Raeburn, 3911 Trimble Rd., Nashville, TN 37215	NASH	1982
STOKES, M/M Harry, 4819 Quail Hollow, Old Hickory, TN 37138	SEL	1983
STOKES, Mr. John L., Memphis Zoological Gardens Overton Park, Memphis, TN 38112	MEM	1979
STONE, Barbara E., 212 N. McLean, Memphis, TN 38112	MEM	1982
**STONE, Mr. Joe, 4128 Caine Lane, Chattanooga, TN 37421	CHAT	1976
STREET, C. P. and Elizabeth, 2410 Golf Club Lane, Nashville, TN 37215	NASH	1982
*STREET, Mr. Thomas E., 411 N. Spring St., Greensboro, NC 27401	CORR	1954
STRINGER, Mrs. Kirby, 205 Lisa Lane, Nashville, TN 37210	NASH	1947
STRINGER, Rev. & Mrs. Randy C., 100 Lucretia Lane, Dyersburg, TN 38024	CHAT	1979
STUART, M/M A. Gordon, 132 Oakview Dr., Bristol, VA 24201	BRI	1970
STUPKA, Mr. Arthur, Rt. 3, Gatlinburg, TN 37738	KNOX	1983
STYKE, M/M Q. N., Jr., 1101 Summer St., Manchester, TN 37355	HR	1975

SULLIVAN, M/M Robert H., 611 Adams St., Manchester, TN 37355	HR	1982
*SUMARA, Mrs. C. K. G., 1011 Church Street, Tiptonville, TN 38079	TAL	1965
SWAFFORD, M/M Carl, 11818 McGee Rd., Ooltewah, TN 37363	CHAT	1968
SWINDELL, M/M Thomas C., 5609 Sunrise Dr., Knoxville, TN 37919	HERN	1948
SWOFFORD, M/M Glen, 550 Valley St., Erwin, TN 37650	HERN	1976
TALBOT, Mrs. Joe H., 6117 Bresslyn Rd., Nashville, TN 37205	NASH	1976
TANNER, M/M Edward F., 22 Kenberton, Pleasant Ridge, MI 48069-1014	SEL	1969
**TANNER, Dr. & Mrs. James T., Rt. 28, Box 155, Knoxville, TN 37920	KNOX	1940
TANZER, M/M Frank, 8510 Mysen Cove, Cordova, TN 38018	MEM	1980
TARBELL, Dr. and Mrs. D. Stanley, 6033 Sherwood Dr., Nashville, TN 37215	NASH	1968
*TAYLOR, Mr. Joseph W., P. O. Box 31 20 Parrish Rd., Honeoye Falls, NY 14472	CORR	1959
TAYLOR, Mr. Richard G., 1357 Rolling Oaks Dr., Memphis, TN 38119	MEM	1975
THAYER, Mr. Arthur D., & Vicki Bethel 1216 Hanover St., Chattanooga, TN 37405	CHAT	1982
THOMAS, M/M Charles S., Jr., 1005 Hillcrest Ave., Columbia, TN 38401	COL	1979
THOMAS, Mr. Luttrell, 2125 Belcourt Ave., Nashville, TN 37212	NASH	1978
THOMPSON, Doris M., P. O. Box 90944, Nashville, TN 37209	NASH	1983
THOMPSON, Mrs. Frank, 716 West Spring Street, Lebanon, TN 37087	SEL	1982
THOMPSON, Mrs. Julia E., 2961 Emerald, Memphis, TN 38118	MEM	1981
THORNELL, M/M Shawn, & Rebecca Lemmons Rt. 1, Box 228, Columbia, TN 38401	COL	1982
TIGANI, Dana S., 2916 Woodlawn Drive, Nashville, TN 37215	NASH	1983
TILLMAN, M/M Barry, 817 S. Wilson Blvd., Nashville, TN 37215	NASH	1983
TODD, Mr. Michael, 651 Diamond Drive, McKenzie, TN 38201	TAL	1983
TOLINE, M/M F. R., Route 13, Box 165, Cookeville, TN 38501	UC	1965
*TRABUE, M/M Lawrence O., 3819 Harding Place, Nashville, TN 37215	NASH	1960
TRICE, M/M Lillard, 817 Cedar Bluff Rd., Knoxville, TN 37919	KNOX	1979
TRIPP, M/M Hiram G., 4401 James Drive, Chattanooga, TN 37416	CHAT	1982
TRIPP, M/M R. G., 1010 S. High St., Columbia, TN 38401	COL	1982
TRONOLONE, Mr. Nick, 9900 Rainbow Dr., Concord, TN 37922	KNOX	1982
TROY, M/M Norman W., 705 Cumberland St., Cowan, TN 37318	HR	1983
TUCKER, M/M John D., Jr., 1892 Wicklow Way, Germantown, TN 38138	MEM	1980
TUNSBERG, M/M Douglas L., P. O. Box 9797, Chattanooga, TN 37212	CHAT	1956
TURNER, Miss Helen, 3005 Walnut Grove Rd., #1, Memphis, TN 38111	MEM	1968
TYM, Ms. Alice L., Route # 2, Box 126, McDonald, TN 37353	CHAT	1983
UNDERWOOD, Sandra S., 3828 Mahoney Rd., Knoxville, TN 37920	KNOX	1983
VAN GELDER, M/M Enno, 416 Hilltop Rd., Bristol, TN 37620	BRI	1961
VAN NOSTRAND, M/M Herb N., Sr., 363 Vance Dr., Bristol, TN 37620	BRI	1981
VANCE, Mr. Dave, 4950 Marianne Ln., Memphis, TN 38117	MEM	1973
VARNER, Mr. Tom C., 119 Narragansette Ave., Chattanooga, TN 37415	CHAT	1981
VAUGHAN, Mrs. Frances, Rt. 6, Box 65, Murfreesboro, TN 37130	MURF	1971
VAUGHN, Mrs. Oma N., 4013 Dorcas Drive, Nashville, TN 37215	NASH	1976
VOGT, Mr. David, 3507 Belmont Blvd., Nashville, TN 37215	NASH	1978
WADE, Miss Mary Ann, 1644 Goodbar Ave., Memphis, TN 38104	MEM	1973
WAHL, Dr. Joseph, 555 Timber Lane, Cookeville, TN 38501	NASH	1981
WALDON, H. Phillip, Jr., 454 N. McNeil, Memphis, TN 38112	MEM	1983
**WALDRON, Martha, 1626 Yorkshire Dr., Memphis, TN 38119	MEM	1970
WALKER, Ms. Ellen J., 1024 Sunset Drive, Clarksville, TN 37040	NASH	1980
WALKER, Miss Mildred, 312 1/2 W. 6th St., Columbia, TN 38401	COL	1981
*WALKER, Mrs. William M., 320 S. W. 12th St., Gainesville, FL 32601	CORR	1935
*WALKUP, Mr. Kenneth A., 309 Le[illegible]ole Road, Nashville, TN 37211	NASH	1971
**WALLACE, Dr. Gary O. , Rt. 7, Box 338 Sunrise Dr., Elizabethton, TN 37643	HERN	1967
WALLACE, Mrs. Gary O. , Rt. 7, Box 338 Sunrise Dr., Elizabethton, TN 37643	HERN	1971
WALSH, M/M James, Rt. 4, Box 124, Elizabethton, TN 37643	HERN	1979
WARD, Donna Louise, 220 Georgia Avenue, McKenzie, TN 38201	TAL	1981
**WARD, Mr. Frank, 605 Holston Avenue, Elizabethton, TN 37643	HERN	1952
WARD, Peggy, 3433 Hampton Avenue, Nashville, TN 37215	NASH	1983
**WARDEN, Miss Margaret L., 1806 E. Belmont Circle, Nashville, TN 37212	NASH	1926
WARFIELD, M/M Charles H., 4208 Estes Road, Nashville, TN 37215	NASH	1979
WARNER, Ruth R., 4415 Harding Place, Nashville, TN 37205	NASH	1983
WATKINS, Miss Violet Jane, 2845 Kenway Road, Nashville, TN 37215	NASH	1955
WATSON, Mr. Joe, RFD 1, Box 223, Rutledge, TN 37861	KNOX	1973
WEAR, M/M Floyd D., 4779 Summerview Ave., Memphis, TN 38118	MEM	1982
WEBER, Mr. Wayne C., No. 303 9153 Saturna Dr., Burnaby, British Columbia V3J 7K1 CANADA	CORR	1976
WEDDINGTON, Nelle B., 4709 Kaye Rd., Memphis, TN 38117	MEM	1981
WEINSTEIN, Mrs. Albert, 3901 Harding Road, Box 38, Nashville, TN 37205	NASH	1974
WEISE, Dr. Charles M., 2314 E. Stratford Court, Milwaukee, WI 53211	CORR	1954
WELLFORD, Mrs. John, 488 Goodlet St., Memphis, TN 38117	MEM	1977
WENDT, Miss Charissa, 825 North Drive, Cookeville, TN 38501	UC	1960
WESSELS, Mrs. Anna M., 2550 Union Ave., Memphis, TN 38112	MEM	1977
**WEST, Mrs. Eugene M., P. O. Box 1662, Fairfield Glade, TN 38555	CHAT	1948
WHITE, Becky, 69 Lynnbrook Cir., Chattanooga, TN 37415	CHAT	1983
WHITE, Mrs. James, Route 3 Barrell Springs Hollow Road, Franklin, TN 37604	NASH	1982

WHITE, Miss Marie, 909 Milford Drive, Cookeville, TN 38501	UC	1961
WHITEHEAD, M/M Clifton, 5019 Temple Road, Nashville, TN 37221	NASH	1982
WHITEHEAD, Mrs. Thomas W., Rt. 8, Johnson City, TN 37601	HERN	1973
WHITLEY, M/M William T., 177 N. Highland #615, Memphis, TN 38111	MEM	1972
WHITLOCK, Mr. James	NASH	1983
**WHITTEMORE, Dr. Wendell, 176 Cherry Rd., Memphis, TN 38117	MEM	1935
*WHITTINGTON, M/M Richard L., 2204 Harbert, Memphis, TN 38104	MEM	1974
WILCOXON, Dr. & Mrs. Hardy C., 4410 Alcott Drive, Nashville, TN 37215	NASH	1978
WILKEY, M/M R. Bruce, P. O. Box 227, Signal Mountain, TN 37377	CHAT	1977
WILKINSON, Dr. & Mrs. R. Dean, McKendree Towers # 811, 4343 Lebanon Road, Hermitage, TN 37076	SEL	1960
WILLARD, Ms. Lillie, Kingsley Apt. 2-D, 100 N. Washington St., Tullahoma, TN 37388	HR	1978
*WILLIAMS, Mr. Dan N., Jr., 108 Wilder Dr., Signal Mountain, TN 37377	CHAT	1981
WILLIAMS, Miss Florence, Route 8, Box 245, Cookeville, TN 38501	UC	1976
**WILLIAMS, Mr. Morris D., Museum of Zoology Louisiana State University, Baton Rouge, LA 70893	CORR	1969
WILLIAMS, Mrs. Virginia N., Rt. 6, Greeneville, TN 37743	GRE	1978
WILLIAMSON, Mrs. W. G., 4237 Auburn Road, Memphis, TN 38116	MEM	1934
WILLIS, M/M Wylie R., 103 Buffalo St., Lawrenceburg, TN 38464	BR	1972
WILSON, Mrs. Charles W., 2355 Eastwood Place, Memphis, TN 38112	MEM	1967
WILSON, Mr. Jeff R., 6298 Memphis/Arlington Rd., Memphis, TN 38134	MEM	1975
WILSON, Mr. John, Route 9, Box 216-A, Lebanon, TN 37087	SEL	1983
WILSON, M/M John D., 4505 Koblan Ct., Hixson, TN 37343	CHAT	1983
WILSON, Mrs. John T., P. O. Box 38, Hillsboro, TN 37342	HR	1980
*WINFIELD, M/M Alan, 2105 Chickering Lane, Nashville, TN 37215	NASH	1983
WINNETT, M/M Truman, Rt. 2, Hillsboro, TN 37342	HR	1974
WISE, Betty, P. O. Box 150684, Nashville, TN 37215	NASH	1983
WITT, Dr. and Mrs. Terry, 1406 W. Northfield Blvd., Murfreesboro, TN 37130	MURF	1982
WITTMAN, Ms. Susan, 1824 Auburndale Ave., Chattanooga, TN 37405	CHAT	1982
*WODTKE, Mrs. Clara Mae, 609 W. Vanderbilt, Oak Ridge, TN 37830	KNOX	1967
WOOD, M/M D. L., Rt. 2, Box 370, Estill Springs, TN 37330	HR	1980
**WOOD, Miss Mary, P. O. Box B, Woodbury, TN 37190	NASH	1963
WOOD, Patricia, 1905 Jefferson #1, Memphis, TN 38104	MEM	1980
**WOODRING, M/M George B., Route 1, Brentwood, TN 37027	NASH	1927
WOOLDRIDGE, Mrs. Rose Newton, 105 W. Cypress, Crestview, FL 32536	MEM	1945
WORDEN, Betty, 586 Valleywood Drive, Nashville, TN 37211	NASH	1982
WORKMAN, Miss Virginia A., 2215 Abbott Martin Road #87, Nashville, TN 37215	NASH	1960
*WORLEY, Mrs. Richard C., 500 Winston Rd., Chattanooga, TN 37405	CHAT	1970
WURZEL, M/M Leonard, 8116 Shady Place, Brentwood, TN 37027	NASH	1981
*YEATMAN, Dr. & Mrs. Harry C., P. O. Box 356, Sewanee, TN 37375	HR	1934
YORK, M/M Grady L., Box 100, Manchester, TN 37355	HR	1974
*YOUNG, M/M Howard, 1909 East Sevier Avenue, Kingsport, TN 37664	TAL	1973
*ZAENGLEIN, Mr. Ralph J., 1121 W. Broadway, Maryville, TN 37801	TAL	1955

*Sustaining Members
**Life Members

EXCHANGES

Alabama Ornithological Society Library - Series Section, Auburn University Library,
Auburn, AL 36830 1964
American Museum of Natural History - The Librarian, New York, NY 10024
Arkansas Audubon Society, 5809 North Country Club, Little Rock, AR 72207 1968
Audubon Naturalist Society, 8940 Jones Mill Road, Washington, DC 20015
Bibliotheque, Station Biologique de la Tour du Valat, Le Sambuc, FRANCE 13200 ARLES
"BIRDING" c/o Mr. James A. Tucker, Box 4335, Austin, TX 78765 1972
British Trust for Ornithology, Beech Grove Tring, Hertfordshire, ENGLAND
Brooks Bird Club, 707 Warwood Avenue, Wheeling, WV 26003
Bureau of Research - New Jersey State Museum, 205 West State Street, Trenton, NJ 08625 1970
California Field Ornithologists, Inc. c/o Point Reyes Bird Observatory,
4990 State Route 1, Stinson Beach, CA 94970 1972
Cumberland Museum and Science Center, 800 Ridley Avenue, Nashville, TN 37203
"Der Ornithologische Beobachter", Schweizerische Vogelwarte, CH-6204 SEMACH, SWITZERLAND
Editorial Office - "Wildlife Review", U. S. Fish & Wildlife Service,
270 Aylesworth Hall, Colorado State Univ., Fort Collins, CO 80523
Federation of N. Y. State Bird Clubs, Inc. c/o Mr. Emanuel Levine,
585 Mead Terrace, South Hempstead, NY 11550
Finnish Ornithological Society - Exchange Centre for Scientific Literature,
Rauhankatu 15 B, SF-00170 HELSINKI 17, FINLAND 1968
Indiana Audubon Society, Inc. c/o Mr. Charles E. Keller, 2505 E. Maynard Drive,
Indianapolis, IN 46227 1962
"Inland Bird Banding News" - Dr. Norman F. Sloan, Editor, Department of Forestry,
Houghton, MI 49931 1967
Institut Royal des Sciences, Naturelles de Belgique, Service de Documentation,
Rue Vautier 31, B - 1040 BRUXELLES, BELGIUM
"Iowa Bird Life" c/o Mr. Peter Peterson, 235 McCelland Blvd., Davenport, IA 52803
Laboratory of Ornithology Library - Cornell University,
159 Sapsucker Woods Road, Ithaca, NY 14850 1963
Library - U. S. Fish & Wildlife Service, Patuxent Wildlife Research Center,
Laurel, MD 20708
Library - U. S. National Museum, Smithsonian Institution, Washington, DC 20025
Literature Acquistion Department, Biological Abstracts,
2100 Arch, Philadelphia, PA 19103 1964
Maryland Ornithological Society, Clyburn Mansion, 4915 Green Springs Avenue,
Baltimore, MD 21209
Massachusetts Audubon Society - Natural History Services,
South Great Road, Lincoln, MA 01773 1952
Michigan Audubon Society, 7000 N. Westnedge, Kalamazoo, MI 49007 1967
Minnesota Ornithologists Union - Museum of Natural History,
University of Minnesota, Minneapolis, MN 55455
Murray Memorial Library - Serials Department, University of Saskatchewan,
Saskatoor, Saskatchewan, CANADA 1944
Nebraska Ornithologigal Union - University of Nebraska State Museum,
101 Morrill Hall, Lincoln, NE 68508
Sociedad de Ciencias Naturales La Salle Biblioteca,
Edf Fundacion La Salle Aptdo 1930, Caracas 1010-A, VENEZUELA
"South Dakota Bird Notes" c/o Mr. Dan Tallman, Editor,
NSC Box 740, Aberdeen, SD 57401
"The Chat" c/o Mrs. Eloise F. Potter, Editor, Route 3, Box 114-AA, Zebulon, NC 27597
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Los Angeles, CA 90024
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Route 2, Box 180, Lake Placid, FL 33852 1977
"The Oriole" c/o Mr. Terry Moore, Editor, 3086 River Oaks Drive, Atlanta, GA 30339
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733 Maple Street, Chippewa Falls, WI 54729
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Dr. G. Zink, Vogelwarte Radolfzell Uber Radolfzell (Bodensee),
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Oklahoma State University, Edmon Low Library - Serials Section, Stillwater, OK 74078	1963
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SENCKENBERGISCHE BIBLIOTHEK, ZEITSCHRIFTENABTEILUNG/DFG, BOCKENHEIMER LANDSTR. 134-138, D-6000 FRANKFURT/MAIN, BUNDESREPUBLIK DEUTSCHLAND	1978
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Tennessee Heritage Program, Director, 2611 West End Avenue, Nashville, TN 37203	1977
Tennessee State Library & Archives - State Library Division, 403 7th Avenue North, Nashville, TN 37219	1930
Tennessee State University, Fancher 0500, 3500 Centennial Blvd., Nashville, TN 37203	
Tennessee Technological University - Jere Whitson Memorial Library, Periodicals Librarian, Cookeville, TN 38501	1972
Tennessee Valley Authority - Forestry Library, Norris, TN 37828	1974
Tulane University, Library - Serials Section, New Orleans, LA 70118	1932

University of British Columbia, Woodard Biomedical Library - Ser. Div.,
2198 Health Sciences Mall, Vancouver, Brit. Columbia, CANADA V6T 1W5 1958
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Berkeley, CA 94720 1934
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E 959 975, Santa Barbara, CA 93106 1972
University of Central Florida, Library - Serials Department,
P. O. Box 25000, Orlando, FL 32816 1971
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Urbana, IL 61801 1956
University of Illinois - Natural History Survey Library, 196 Natural Resources Bldg.,
607 E. Peabody Drive, Champaign, IL 61820 1956
University of Kansas, Library - Periodical Section, Lawrence, KS 66045 1956
University of Kentucky - Agricultural Library, Agricultural Science Center North,
Lexington, KY 40546 1969
University of Mississippi, Library - Serials Section, University, MS 38677 1947
University of Missouri at Columbia, Library - Serials Department, Columbia, MO 65201 1983
University of the South, Jessie Ball Dupont Library - Serials Department,
Sewanee, TN 37375 1968
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Chattanooga, TN 37401 1970
University of Tennessee at Martin - Paul Meek Library, Martin, TN 38238 1979
U. S. Fish & Wildlife Service, Kentucky Research Station, 334 15th Street,
Bowling Green, KY 42101 1979
Vanderbilt University, Library - Periodicals,
419 21st Avenue South, Nashville, TN 37240 1935
Western Carolina University, Hunter Library - Serials, Cullowhee, NC 28723 1975
Western Michigan University, Dwight B. Waldo Library - Serials Records,
Kalamazoo, MI 49008 1972
Yale University, Peabody Museum - Ornithology Library, Box 6666, New Haven, CT 06511 1963

MEMBERSHIP SUMMARY

CHAPTER	LIFE	SUSTAINING	FAMILY	ACTIVE	STUDENT	TOTAL
BRISTOL (BRI)	-	-	12	10	-	22
BUFFALO RIVER (BR)	-	-	11	4	-	15
CHATTANOOGA (CHAT)	7	7	38	45	4	101
COLUMBIA (COL)	1	1	14	12	-	28
CORRESPONDING (CORR)	5	6	1	26	-	38
EXCHANGES (EXC)	-	-	-	-	-	43
GREENEVILLE (GRE)	-	-	8	6	-	14
LEE R. HERNDON - ELIZABETHTON (HERN)	2	-	10	20	-	32
HIGHLAND RIM (HR)	1	2	22	8	-	33
KINGSPORT (KING)	3	-	-	2	-	5
KNOXVILLE (KNOX)	4	12	24	48	-	88
LIBRARIES (LIB)	1	-	1	64	-	66
MEMPHIS (MEM)	8	7	48	67	-	130
MURFREESBORO (MURF)	-	1	15	4	-	20
NASHVILLE (NASH)	16	12	61	91	5	185
JOHN W. SELLARS - LEBANON) (SEL)	-	-	15	24	1	40
TENNESSEE AT LARGE (TAL)	3	6	8	22	1	40
UPPER CUMBERLAND (UC)	1	-	2	7	-	10
TOTALS	52	54	290	460	11	910

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MINUTES OF THE 1983 ANNUAL BOARD OF DIRECTORS AND BUSINESS MEETING

BOARD OF DIRECTORS MEETING

The 68th Annual Meeting of the Board of Directors of the Tennessee Ornithological Society convened on 7 May 1983 at Ellington Hall, Reelfoot Lake State Park, Tennessee. Vice President for Middle Tennessee, Dan Gray, called the meeting to order with Secretary Pat Stallings recording the minutes. The minutes of the 11 November 1982 meeting were approved as read.

REPORTS OF OFFICERS

The CURATOR, James T. Tanner, reported that sales of back copies of *The Migrant* had produced an income of $106 during the past year.

The TREASURER, George R. Payne, Jr., reported for the period 13 November 1982 to 5 May 1983, assets of $33,858.11, anticipated liabilities $8,900.00, leaving a capital reserve of $24,958.11. Income for the period was $7,448.40; expenses were $5,355.42. Present membership totals 806.

The EDITOR of *The Migrant,* Charles P. Nicholson, stated that the September 1982 issue of *The Migrant* is now being typeset. The December issue is ready except for two Season Reports which he has not yet received. Manuscripts are needed for forthcoming issues.

Sharon Bostick of Knoxville was introduced as the new EDITOR of *The Tennessee Warbler*.

There were no other officers' or directors' reports.

REPORTS OF COMMITTEES

NOMINATING — Marcia Davis, Chairperson, presented the following slate of officers:

Vice Presidents:	East	Lil Dubke, Chattanooga
	Middle	Dan Gray, Columbia
	West	Carolyn Bullock, Memphis
Directors at Large:	East	Anne Young, Kingsport
	Middle	Robbie Hassler, Byrdstown
	West	David Pitts, Martin
Secretary:	Barbara Finney, Knoxville	
Treasurer:	George Payne, Jr., Memphis	
Curator:	James Tanner, Knoxville	
Editor, *The Migrant:*	Charles Nicholson, Norris	

There were no other nominations from the floor. Arlo Smith moved that nominations be closed; Randy Stringer seconded.

CONSERVATION — Bruce Wilkey, Chairperson, asked members to become involved by contacting their Congressmen, urging reauthorization of a strong Clean Water Act, Clean Air Act, and adequate funding for the recently renewed Endangered Species Act. Several environmental problems at the state level include toxic wast, which the Hazardous Waste Superfund Bill would alleviate through levying fees to fund reclamation of old dump sites. The Land and Water Conservation Fund needs state appropriations to receive matching Federal funds. The Youth Conservation Corps Act would put unemployed young people to work on state conservation projects. Support of these proposals was recommended.

NEW BUSINESS

Nelle Moore expressed concern that there are some inconsistencies in the Constitution and moved that a committee be appointed by the new president to study and report at the next spring meeting; Arlo Smith seconded; the motion carried.

Charles Nicholson announced that the Tennessee Valley Authority is in the process of making land management plans for most of their reservoirs, and is presently working on Kentucky Lake. Members were asked to notify him or Linda Fowler of good birding areas or other unique areas along Kentucky Lake, particularly those not already within protected areas.

ANNOUNCEMENTS

FALL 1983 MEETING — The Buffalo River Chapter will host the fall meeting 18-20 November 1983 in Lawrenceburg.

SPRING 1984 MEETING — Rick Knight of the Lee R. Herndon Chapter extended an invitation for the spring meeting to be held at Roan Mountain, 18-20 May 1984. Cabins at the state park are available, but early reservations are required.

1983 FORAY — Charles Nicholson reminded everyone that the 1983 Foray will be conducted in Polk County, 27-30 May. The diversity of habitats there promises an interesting foray.

The meeting adjourned at 1645.

BUSINESS MEETING

After a buffet-style dinner at Ellington Hall, Jim Ferguson, president of the Memphis Chapter, welcomed people and expressed appreciation to the people responsible for the meeting arrangements, especially "General" Helen Dinkelspiel. Alice Smith, of the Memphis Chapter, was recognized as having been an active member of TOS for 50 years. Ten others who have been members for more than 50 years were recognized: Mrs. George Mayfield, Sr.; Vernon Sharp; Ben and Lula Coffey; Margaret Warden; Mr. and Mrs. George Woodring; Mary Davant; Jack Embury; and Franklin McKamey.

Dan Gray opened the business meeting with a report on the Board of Directors Meeting. He introduced Charles Nicholson and Bruce Wilkey who reiterated their reports and statements from the afternoon meeting.

Bob Hatcher, of the Tennessee Wildlife Resources Agency, announced that the supply of bird field checklists was low, and needed to be reprinted. The need to update it to reflect recent status and taxonomy changes was discussed. George Payne moved that the TOS Certification Committee be empowered to make the necessary revisions. Bruce Wilkey seconded, and the motion carried.

The slate of officers proposed by the Nominating Committee was presented. Helen Dinkelspiel moved that the recommendations of the committee be approved; Ken Dubke seconded and the new officers were elected.

Members present from each chapter and members-at-large were recognized. Announcements of the next fall and spring meetings and of the foray were made.

The gavel was presented to the incoming president, Tony Koella, who challenged members to broaden the base of participation in TOS and to involve more young people by sparking their interest in birds. Jim Ferguson introduced Joe Guinn, who presented a program of his slides of the Hatchie River accompanied by bird songs recorded by Ben Coffey.

PAT STALLINGS, *Secretary*

MINUTES OF THE 1983 FALL MEETING AND SYMPOSIUM

The 1983 Fall Meeting and Symposium, consisting of a Board of Directors meeting, symposium, and field trips, was held in Lawrenceburg, Tennessee, 18-20 November 1983.

BOARD OF DIRECTORS MEETING

The Fall Meeting of the Board of Directors was called to order on 19 November by President Tony Koella, with Secretary Barbara Finney recording the minutes. The minutes of the 7 May 1983 Board of Directors and Business Meetings were read and approved as corrected.

REPORTS OF OFFICERS

VICE PRESIDENT for East Tennessee, Lil Dubke, reported on her visit to the Greeneville Chapter. She announced that she was serving as chairman of an ad hoc committee composed of the three vice presidents to aid the smaller chapters. She is compiling a list of speakers to be available to these chapters and assembling an outreach packet of aids for these groups. Dan Gray, VICE PRESIDENT for Middle Tennessee, outlined some of the items which could be used in the packet and some of the resources which chapters could develop for their members.

TREASURER George R. Payne, Jr., reported that there had been little change in the membership since the May meeting. He reported assets on hand of $34,429.13 with anticipated liabilities of $7,300.00 leaving a capital reserve of $27,149.13. Income since the May meeting was $1,922.51.

The CURATOR, James T. Tanner, was not present, but the President read his report. He said that there have been few requests for either purchase or replacement of lost copies of *The Migrant* since the May meeting and the back copy file is in good shape.

The EDITOR of *The Migrant*, Charles P. Nicholson, reported that only one copy of *The Migrant* had been mailed since the May meeting. The December 1982 issue is in progress, but will take longer since it will include a three-year index. A motion from the floor to delete the Christmas Count from *The Migrant* was heatedly discussed and defeated.

Sharon Bostick, EDITOR of *The Tennessee Warbler*, sent a report which was read by the President. She reported that one thousand copies of the newsletter were mailed in September.

Robbie Hassler, Middle Tennessee DIRECTOR-AT-LARGE, reported a request by the National Park Service to compile a bird checklist for the Big South Fork area. She requested any bird records that members had compiled from this area be given to her. She also outlined the land management plan for the Dale Hollow Lake which she urged members to read.

David Pitts, DIRECTOR-AT-LARGE for West Tennessee, yielded to Morris Williams. Williams recommended that the TOS donate a set of back issues of *The Migrant* to Dr. Ralph Palmer for use in the compilation of the *Handbook of North American Birds*. This motion was made by Pitts and seconded by Ben Coffey. The motion carried.

There were no other officers' or directors' reports.

REPORTS OF COMMITTEES

FINANCE — This committee had no report but will offer a report at the Spring Meeting. The President enlarged on the endowment program goals and requested ideas for the committee.

The FORAY was announced for 11-13 May 1984, at Reelfoot Lake with David Pitts in charge.

There was no Conservation Committee report.

NEW BUSINESS

President Koella thanked outgoing fall meeting director David Pitts for his work and announced that the new chairman would be Fred Alsop. The President also expressed appreciation to Lloyd Clayton and the Buffalo River Chapter for hosting the meeting.

SYMPOSIUM

The afternoon paper session, chaired by T. David Pitts, was held on 19 November. The following papers were presented:

CHARLES P. NICHOLSON — Results of the 1983 Polk County Foray.

GEORGE R. PAYNE, JR. — Western species of hummingbirds at Memphis.

ROBERT HATCHER — Review of Tennessee Wildlife Resources Agency's non-game program.

DEAN RUNDLE — Habitat management for rails and shorebirds.

DON HAMMER — Golden Eagle restoration.

RICK KNIGHT — Fall banding at Austin Springs.

The evening program, "Reelfoot Lake, Past, Present, Future," was presented by Dr. Wintfred L. Smith.

Barbara W. Finney, *Secretary*

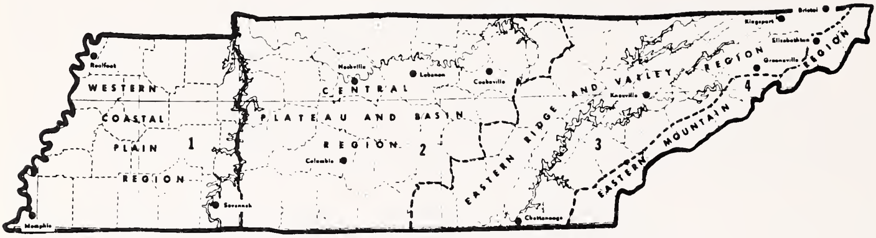
BOOK REVIEWS

PRIVATE LIVES OF GARDEN BIRDS — Calvin Simonds. 1984. Rodale Press, Emmaus, Pennsylvania. 175 pp. $14.95. — The author of this book, who uses Calvin Simonds as a pen name, describes himself as a behavioral biologist turned natural historian. His book is directed at readers who already have some appreciation of nature through gardening, but know little about birds. The stated purpose of this book is to introduce readers to some aspects of bird behavior, and in the process, help readers gain a deeper appreciation of nature. To do this, he describes aspects of the behavior of 10 species or species groups of birds, from phoebes through House Sparrows, devoting a chapter to each. Included are discussions of the differences in song between Northern Mockingbirds, Brown Thrashers, and Gray Catbirds, descriptions of Song Sparrow dialects, dispersal in Blue Jays, and Red-winged Blackbird mating systems. I was somewhat taken aback by his defense of ''English'' Sparrows, but it is in keeping with his organic gardening approach. Several classic bird behavioral studies, and some not yet classic, are alluded to, without the citations being given. This is, however, in keeping with the author's informal writing style, which includes descriptions of many personal encounters with birds. The author concludes with a chapter giving advice on attracting birds to the yard, how to put up birdhouses and feeders, and descriptions of field guides and other helpful bird books. — CHARLES P. NICHOLSON

BIRDS OF ROAN MOUNTAIN AND VICINITY. By Glen Eller and Gary Wallace. (1984). Elizabethton, Tennessee, privately published. 12 pp. $1.50 + .40 postage from Glen D. Eller, Rt. 9, Box 1340, Grandview Terrace. Elizabethton, TN 37643. The main part of this booklet is a listing of 173 species of birds in the Roan Mountain area of Tennessee and North Carolina. For each species, bar graphs show seasonal and altitudinal distribution, and breeding species are noted. The area covered varies from an elevation of 2,564 feet at the town of Roan Mountain to 6,285 feet on Roan High Knob. The habitat in this area includes agricultural lands, oak-hickory forests, cove hardwoods, northern hardwood forests, spruce-fir forests, and both grassy and shrub balds. The information used in assembling this booklet is based mostly on the records of the Lee R. Herndon (Elizabethton) Chapter of the Tennessee Ornithological Society. Records are mainly from 1970. Both sight records and some banding records were used. It is unclear how much use was made of early records from Roan Mountain; in any event, no attempt has been made to show changes in bird populations. For example, the Peregrine Falcon is not indicated as having formerly nested on Roan Mountain.

With the publication of this booklet, Tennessee birders now have another helpful regional publication available to them. Mine will sit on a readily accessible shelf alongside Stupka's Birds of the Great Smoky Mountain National Park, Parmer's Birds of the Nashville Area, and Waldron's Seasonal Occurrences of Shelby County, Tennessee Birds. — CHARLES P. NICHOLSON

THE SEASON



SUMMER: 1 JUNE - 31 JULY 1983

For me, the summer season is among the most important and exciting seasons of the year. Although the odds of adding a rare bird to one's state list are perhaps lowest during this period, every TOS member can make meaningful contributions to ornithology during the summer. This can be done by reporting observations of those birds presently undergoing increases or declines in numbers, by reporting new localities for species moving east or west in the state, and simply keeping notes on the nesting of common birds about the house.

Several species which have been expanding their breeding range in Tennessee continued to do so this season. Willow Flycatchers were found at new sites in Middle and East Tennessee. Tree Swallows nested for the first time in Nashville, and were found near Watauga Lake, and small flocks of Bank Swallows were present during June near Knoxville and at Kingston Steam Plant. Song Sparrows were once again found at new sites in Middle Tennessee, and a House Finch was present in Memphis in late June. It is only a matter of time before this species is nesting throughout the state.

An exciting development was the likely nesting of Bald Eagles in both the Central Plateau and Basin, and in the Eastern Ridge and Valley Regions. Few comments regarding the weather were received from regional compilers, except that during July temperatures were greatly above normal and rainfall was greatly below normal. — Charles P. Nicholson.

WESTERN COASTAL PLAIN REGION—Much of the summer birding effort in the Memphis area was centered around the Ensley Sewage Lagoons, in hopes of again finding nesting Black-necked Stilts. The lagoons only hosted the usual shorebirds in moderate numbers, and no stilts were observed.

Heron-Finch: Yellow-crowned Night-Heron: 7 May (8 active nests), 12 Jul (5 nests, egg shells under 2 nests) Hatchie River near Hwy 18, Hardeman Co. (Chuck Cook). Ruddy Duck: 7 Jun - 12 Jun (6) Robco Lake (BBC, LCC). Green-winged Teal: 23 Jul (4) ESL (DAD, JRW). Killdeer: 15-17 Jul (200) PBP (CGD). WILLET: 15 Jul (2) PBP (CGD). Semipalmated Sandpiper: 23 Jul (2) ESL (DAD, JRW); 29 Jul (2) ESL (BBC, LCC). White-rumped Sandpiper: 23 Jul (7) ESL (DAD, JRW). Stilt Sandpiper: 23 Jul (3) ESL (DAD, JRW). Least Tern: 10 Jul (4) calling and dive bombing, 1 with minnow, scrapes found but no eggs or young, 16 Jul (2 young, 9-10 days old) on mainland near mouth of Wolf River, Shelby Co. (BBC, LCC, JRW). This is the 2nd mainland Least Tern nesting known for Tennessee. Scissor-tailed Flycatcher: 24 Jun (1) I-40 at mile 53-54, Haywood Co. (JCM). Tree Swallow: 15-17 Jul (2000) REL (CGD). White-breasted Nuthatch: 16 Jun, 2 Aug (1) Overton Park, MEM, first in 17 years (BBC). White-throated

Sparrow: 23 Jun (1) MEM (BBC, LCC). House Finch: 29-30 Jun (1) MEM (JLL), first June record for west Tennessee.

Locations: ESL—Ensley Sewage Lagoons, Shelby Co.; MEM—Memphis; PBP—Phillipy Borrow Pits, Lake Co.

Martha G. Waldron, 1626 Yorkshire Dr., Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION—Despite many observers' demurrals about the dullness of the nesting season, as well as about the uncomfortable conditions which prevail then, summer remains the most important of all seasons in terms of the need for coverage of avian populations. This importance derives from the fact that the population of many regional species is determined by the breeding success or failure that occurs in a few weeks for most species during the nesting season. Particularly at this time the birds nesting in the region — over 125 species in all — require attention from field observers, yet all too often this is the season when field work ceases or slows considerably, with the result that many species' status remains enigmatic.

Certainly projects are undertaken each summer which yield valuable information. For instance, the 15 Breeding Bird Surveys (BBS) conducted in the region are undoubtedly the most ambitious and important of all the work which occurs during the summer. This year the BBS routes accounted for data on 95 species of nesting birds. Many of them are in good shape, judging from BBS results, but many, particularly neotropical migrants which nest in the region, have a less certain status. In part, this uncertainty stems from the relatively tiny portion of the region which is covered by the BBS routes; fewer than one half of the region's counties have part or all of one route within their boundaries. Of the counties which do have a route, only a fraction of each is censused by the BBS cooperator. Another reason for our uncertainty about the status of some species stems from the circumstance that some habitats are not covered by BBS routes. For example, Willow Flycatcher has never been recorded on a BBS route in the region, mainly because no route contains much habitat favored by this marsh-haunting species. Consequently, Willow Flycatcher data must be obtained from other sources. However, dedicated field observers who locate, monitor, and report on these populations are scarce. The same condition prevails for several other species in the region: Least Bittern, Yellow-crowned Night-Heron, King Rail, Spotted Sandpiper, Common Barn-Owl, and (recently) House Finch.

Besides the BBS Program, several other projects important to understanding the status of breeding birds in the region occur each summer. These include breeding bird banding projects, heron rookery censuses, and raptor hacking programs. The first of these is carried out by licensed banders, who work under the auspices of the U.S. Fish and Wildlife Service. Much of what we know, for instance, about the status of the regional Eastern Bluebird population stems from such work, especially that conducted in Cheatham County by John and Martha Herbert. Their work showed that the hot and near record dry July of 1983 affected bluebirds negatively, as it probably did other species.

Another project associated with the breeding birds of the region is carried out by the Tennessee Valley Authority, which annually monitors heron rookeries in the Tennessee Valley region. The work of TVA biologist Burline P. Pullin has added significantly to our knowledge of wading bird numbers in the region. As it turns out, a bare handful of rookeries account for the majority of herons which we enjoy each year; consequently, close monitoring of these sites is essential if we are to detect downward trends in time to counteract them.

The hacking programs which are carried out in Tennessee each summer are our best current means of reestablishing nesting populations of some hawks and owls which are rare in, or have been exptirpated from, the region. Many volunteers make this program possible; without the many hours which they donate to the cause of raptor conservation, our area's avifauna would be poorer. Their efforts may lead to the eventual return to our region of such impressive birds of prey as the Osprey and Bald Eagle.

It is a pleasure to add one final note related to the breeding birds of the region. Based on circumstantial evidence which will be related in the Fall 1983 report, there is a very high probability that a successful Bald Eagle nesting took place in the western portion of the region. It would represent the first natural nesting of the species in the state since 1961, when eagles nested near Reelfoot Lake. This information is available now because field workers were out during the warm days of summer, when nothing is supposed to be happening in the region; obviously much was.

Loon-Teal: Common Loon: 19 Jul (1 in winter plumage) Hamilton Creek, Percy Priest L. (DFV), limited summer records in region. Great Blue Heron: 23 Mar (90 active nests) Duck River Unit, Tennessee National Wildlife Refuge (BPP); 17 May (88 active nests) AEDC ponds, CFC (BPP). Great Egret: 9-18 Jul (1) PPL (ABP, RDP). Little Blue Heron: 9 Jun (1 ad) Loretto, LWC (DKS, DJS, RN); 20 Jul (12) Lake Barkley WMA, SWC (DWB); 31 Jul (3 imm) PPL (ABP, RDP). Cattle Egret: 4 Jul (3) HIC (Kenneth G. Anderson); 11-16 Jul (5) PPL (ABP, RDP); 28 Jul (6) PPL (ABP, RDP). Black-crowned Night-Heron: 21 Jun (298 active nests estimated; other estimates lower) Bordeaux Heronry, DVC (BPP); 17 Jul (12) Bear Creek WMA, SWC (DWB). Yellow-crowned Night-Heron: 21 Jun (1 active nest) Mill Creek, DVC (BPP); 17 Jul (3) Bear Creek WMA, SWC (DWB); all season (4) Metro Center, DVC (DFV). Mallard: 4 Jun (1) Glen BBS, GYC/WRC (DRJ), no other reports received. Blue-winged Teal: 10 Jun (2 males) GSP (DTC, JPC).

Osprey-Tern: Osprey hacking results: 2 hacked on PPL (RDP); 1 hacked in Sumner Co. (Wick Comer); 2 hacked Woods Reservoir (Carolyn Franklin); 26 Jun - 28 Jul (1 color-marked ad) PPL (RDP); 11-30 Jun (1 unmarked ad) PPL (RDP). Bald Eagle: 3 hacked at LBL (*fide* Tony Campbell). Cooper's Hawk: 11 Jun (1) Pond Creek BBS, CHC (John O. Ellis). *Accipiter* sp.: 12 Jun (1) Union Hill BBS, CYC/MCC (CPN). Broad-winged Hawk: all season (nesting) Basin Springs, WMC (KAG); sighted on 3 BBS routes. Wild Turkey: 2 Jun (1) Bear Creek WMA, SWC (*fide* SJS); 3 Jun (1 ad, 3 y) Devil's Backbone, LBL (*fide* SJS). Spotted Sandpiper: all season (3 ad, 3 nests, 11 y) Metro Center, DVC (DFV), fifth year in a row at this site. American Woodcock: 12 Jun (1) Long Pond Slough, MTC (*fide* SJS). 16 June (2) Dover (DWB); 5 Jul (1) May Prairie, CFC (*fide* SJS). Ring-billed Gull: 8 June (8) Old Hickory Lake, DVC (*fide* LFK), probable summering. Caspian Tern: 4 Jun (4) GSP (LFK), 2nd Nashville area June record; 24 Jul (1) GSP (DTC, JPC).

Barn-Owl - Swallow: Common Barn-Owl: 1 Jun and 11 Jun (2 and 3) Clarksville (Ellen J. Walker); July (2 hacked) Ashland City (John Herbert); July (2 hacked) RUC (*fide* Tom Grelen). Chuck-will's-widow: 13 Jun (1) Byrdstown (RCH), uncommon on Highland Rim. Red-headed Woodpecker: all summer (pair) Metro Center, DVC (DFV); recorded on BBS in CFC, SUC, MHC, and WMC; CHC population not monitored? Willow Flycatcher: 12 Jun (2 singing) Misery Swamp, MTC (*fide* SJS); all summer (5 singing, 1 nest found) Metro Center, DVC

(DFV); located in CHC — Dyson's Ditch and Sam's Creek, and DIC — Pardue Pond. Horned Lark: 4 Jun (1) Glen BBS, GYC/WCY (DRJ), only report for season. Tree Swallow: all summer (2 ad, nest, 3 y fledged) Metro Center, DVC (DFV), first Nashville area nesting record. Bank Swallow: 16 Jun (1) Dover (DWB), rare breeder. Cliff Swallow: 9 Jun (8) West Point, LWC (DKS, DJS, RN); most CHC sites active.

Wren-Warbler: Bewick's Wren: 27 May (1) Peytonsville BBS, WMC (SJS); 1 Jun (3) Indian Mound BBS, MTC/SWC (*fide* KAG); 9 Jun (1) LWC (DKS, KJS, RN); present WLC (Earline Berry), RUC (Ruth V. McMillan), and SUC (DTC, JPC). House Wren: 1 Jun (1) Indian Mound BBS, MTC/SWC (*fide* KAG), rare breeder except in suburban Nashville. Cedar Waxwing: 1 Jun (7, flock) Indian Mound BBS, MTC/SWC (*fide* KAG), migrants. Eastern Bluebird: all summer (324 banded) near Ashland City (Martha F. Herbert), compares with 451 in 1982 and 365 in 1981. Black-throated Green Warbler: 5 Jun (1 singing) Nacom, HIC (George R. Mayfield, Jr.), either late migrant or very rare breeder, probably former. Pine Warbler: 4 Jun (nest) Gatlin Point, LBL (DWB).

Grosbeak-Finch: Blue Grosbeak: 13 Jun (2) Byrdstown (RCH); reported on 11 BBS, so in good shape. Dickcissel: 4 Jun (10) Glen BBS, GYC/WRC (DRJ), high number; 1 Jul (1) Metro Center, DVC (DFV); absent Pardue Pond, DIC. Lark Sparrow: 12 Jun (1) Union Hill BBS, CYC/MCC (CPN); present WLC and RUC. Grasshopper Sparrow: recorded on 5 BBS with high of 4 on Glen route; present Del Rio Pike, WMC. Song Sparrow: 3 Jun (1 singing) Dozier's Dock, CHC (*fide* SJS); 24 Jul (1 singing) GSP (DTC, JPC); all summer (40 singing) Metro Center, DVC (DFV); recorded on 3 eastern BBS with high of 17 on Glen route. Northern (Baltimore) Oriole: recorded 2 BBS — MHC and Cannon/Bedford Counties. House Finch: 4 Jul (1) Nashville (Larry D. Raye), rare summer, but breeding imminent.

Locations (and abbreviations): ad—adult; CFC—Coffee Co.; CHC—Cheatham Co.; CYC—Clay Co.; DIC—Dickson Co.; DVC—Davidson Co.; GSP—Gallatin Steam Plant, Sumner Co.; GYC—Grundy Co.; HIC—Hickman Co.; imm—immature; L.—Lake; LBL—Land Between the Lakes, Stewart Co.; LWC—Lawrence Co.; MCC—Macon Co.; MHC—Marshall Co.; MTC—Montgomery Co.; PPL—Percy Priest Lake, Rutherford Co.; RUC—Rutherford Co.; SUC—Sumner Co.; SWC—Stewart Co; WLC—Wilson Co.; WMA—Wildlife Management Area; WMC—Williamson Co.; WRC—Warren Co.; y—young.

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EASTERN RIDGE AND VALLEY REGION—The avian populations should be more settled during this period than during any other time of the year. Close observation revealed a few shorebirds still present the first part of June at the Kingston Steam Plant. Very close scrutiny by alert observers further revealed changes in numbers of some populations and possible nesting in new locations by others. Some of the birds with changes included lower numbers of House Wrens, possible nesting Bank and Tree Swallows and out-of-range Solitary Vireos singing on territory.

The small nesting population of Ospreys on Watts Bar Lake continues to expand. This year a total of 15 young were produced from 7 active nests. Excitement was generated when two adult Bald Eagles and a single immature appeared on Nickajack Lake in June and July. Close observation will be made to verify actual nesting in the area.

All reports received on Loggerhead Shrikes have been incorporated in the report. Birders should continue to document and forward their observations on this sensitive species. Only in this manner will we have a benchmark regarding future population changes with the small scattered number of nesting shrikes.

Toward the middle and end of July population changes were detected with shorebirds moving south and wandering herons traditionally moving north.

Egret-Hawks: Great Egret: 26 Jun (1) LOU (MLD); 28 Jun (1) NRL (JCH); 9 Jul (1) AUS (GOW); 29 Jul (8) DOL (WKJ). Little Blue Heron: 9 Jul (1) SAB (KHD, LHD); 12 July (1) KSP (KHD, LHD); 12 Jul (1) HRA (KHD, LHD); 21-28 Jul (6) EBF (LJF); 24 Jul (1) AUS (RLK); 26-31 Jul (12-15) RAB (JAK). Cattle Egret: 30 Jun (1) Greeneville (James Pentecost *fide* CPN). Green-backed Heron: (10-30) EBF (LJF). Black-crowned Night-Heron: 24 Jul (2) AUS (RLK). Yellow-crowned Night-Heron: 11 Jul (8 ad, 5 imm) CHA (Judy K. Boyles, Katherine Boyles). Redhead: 3 Jul (1) Greene Co. (JAK). Ring-necked Duck: 7 Jun (1) KSP (KHD, LHD). Greater Scaup: 7 Jun (1) KSP (LHD). Osprey: a total of 7 nests on WBL produced a total of 15 young (T. Ed Beddow). Bald Eagle: on 24 Jun 2 adults were reported on Nickajack Lake (James C. Pettyjohn), then on 16 Jul an immature was found there (CTOS); all three of the birds were then found on a regular basis for the remainder of the period (CTOS). Sharp-shinned Hawk: 12 Jul (1) AUS (RLK); 23 Jun (1 with food) Greenback, Loudon Co. (CPN). Cooper's Hawk: 27 Jun (1) EJC (EHS).

Coot-Horned Lark: American Coot: 7 Jun (3) NIL (KHD, LHD); 4-12 Jul (1) KSP (KHD, LHD, PCH); up to 12 during the period CHL (KHD). Semipalmated Plover: 21-28 Jul (1-9) EBF (LJF). Killdeer: 21-28 Jul (97-112) EBF (LJF). Greater Yellowlegs: 31 Jul (3) RAB (JAK). Lesser Yellowlegs: 12 Jul (1) KSP (KHD, LHD); 21-26 Jul (2-3) EBF (LJF); 31 Jul (3) KSP (LJF); 31 Jul (9) RAB (JAK). Solitary Sandpiper: 12 Jul (1) KSP (KHD, LHD); 18 Jul (1) AUS (RLK); 18 Jul (2) HRA (KHD, LHD). Semipalmated Sandpiper: 7 Jun (9) KSP (KHD, LHD); 31 Jul (4) KSP (LJF); 31 Jul (3) RAB (JAK). Least Sandpiper: 12 Jul (2) KSP (KHD, LHD); 21-28 Jul (1-6) EBF (LJF); 31 Jul (2) RAB (JAK). White-rumped Sandpiper: 4 Jun (2) KSP (MLD); 7 Jun (1) KSP (KHD,LHD); 31 Jul (4) KSP (LJF); 31 Jul (3) RAB (JAK). Least Sandpiper: 12 Jul (2) KSP (KHD, LHD); 21-28 Jul (1-6) EBF (LJF); 31 Jul (2) RAB (JAK). Baird's Sandpiper: 31 Jul (4) RAB (JAK). Pectoral Sandpiper: 21-28 Jul (3-26) EBF (LJF); 25 Jul (1) AUS (RLK). Common Snipe: 25 Jul (1) HRA (PCH). Caspian Tern: 4 Jul (1) KSP (KHD, LHD, PCH). Forster's Tern: 25 Jul (1) SAB (KHD, LHD). Black-billed Cuckoo: 6 Jun (1) EJC (RL). Yellow-billed Cuckoo: good increase on some BBS routes in KNX area (CPN). Common Barn-Owl: 2 pair regular near BOL (RLK). Red-headed Woodpecker: 2 pair present Jonesborough (RLK). Willow Flycatcher: no nests found, but 3-5 singing around AUS (RLK); 1 on Smokey Jct. BBS route, Scott Co., first time ever there (CPN); one singing regular Amnicola Marsh (Johnny T. Parks). Eastern Phoebe: good increase on some BBS routes in KNX area (CPN). Horned Lark: up to 30-40 at WHP (JAK).

Swallows-Warblers: Tree Swallow: on 4 Jun 4 adults were noted feeding around the same area on Douglas Lake where they were suspected of nesting in 1982, on 26 Jun 2 adults were still present, but no young were noted (JAK). Bank

Swallow: 9 Jul (1) AUS (GOW, RDL); a small flock was present during the summer in east Knox Co., but the nesting area could not be found (PDH); also they were present into Jun at KSP (MLD, KHD, LHD). Cliff Swallow: 9 Jul (2) AUS (GOW, RDL). Carolina Wren: populations are continuing to increase KNX area; numbers on several BBS routes there equalling or exceeding those of the mid-1970's (CPN). House Wren: numbers lower than usual EJC (LHTOS); only 2 birds heard singing in Newport, contrasted to the 16 heard in 1982 (JAK). Sedge Wren: 31 Jul (1) SAB (KHD, LHD). Cedar Waxwing: 4 Jul (2) KSP (KHD, LHD, PCH). Loggerhead Shrike: no nesting recorded, but 2-3 individuals present, southern Washington Co. (RLK); four reports KNX (PDH, CPN); 12 Jul (3, family group?) SAB (KHD, LHD); 14 Jun (1 ad, 3 y) CHA (RAR); 18 Jul (1) Pikeville (RAR). Solitary Vireo: 14 Jun (1 singing on territory) RER (KHD, LHD); 5 Jun (2 singing) Fall Creek Falls State Park (KHD, LHD). Prothonotary Warbler: 30 Jun, 2 Jul (1-2) along the Watauga R. near AUS (MD, JW, GOW). Swainson's Warbler: 14 Jun (2 singing) RER (KHD, LHD).

Tanager-Finch: Summer Tanager: seems to be more scarce each summer EJC area (LHTOS) — no comments received from other areas. Dickcissel: none noted at WHP (JAK). Grasshopper Sparrow: after 5 years of steady decline EJC the past 2 years have shown a 10-15% increase there (LHTOS); some local increase KNX; 12 on territory in Vonore area (CPN). Bobolink: 24 Jul (1) AUS (RLK) — this record is considered an early migrant for their area. Northern Oriole: usual scattered birds EJC (LHTOS). House Finch: 1-2 birds, with young, reported from winter feeding stations EJC — no nests found there (LHTOS); nesting population in KNX continues to increase there (CPN).

Locations: AUS—Austin Springs; BOL—Boone Lake; CHA—Chattanooga; CHL—Chickamauga Lake; DOL—Douglas Lake; EBF—Eagle Bend Fish Hatchery; EJC—Elizabethon - Johnson City; HRA—Hiwassee River Area; KNX—Knoxville; KSP—Kingston Steam Plant; LOU—Louisville; NIL—Nickajack Lake; NRL—Norris Lake; RAB—Rankin Bottoms (Cocke County section of Douglas Lake); RER—Reflection Riding, Chattanooga; SAB—Savannah Bay; WBL—Watts Bar Lake; WHP—White Pine.

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EASTERN MOUNTAIN REGION—Two highlights of this season in upper East Tennessee were apparently territorial Hermit Thrushes on Roan Mountain, and fledgling Tree Swallows on Watauga Lake. Temperatures were above average much of the period, and rainfall was below normal. The hot, dry weather apparently had little effect on nesting birds.

Loon-Sandpiper: Common Loon: 14 Jun (1 in breeding plumage) WibL (RLK), very late. Yellow-crowned Night-Heron: no nests located, irregular throughout period (*fide* GDE). Sharp-shinned Hawk: 15 Jun (1) RNM (RLK); 3 Jul (1) WatL (GDE); 12 Jul (1) StJ (RLK). Cooper's Hawk: 4 Jul (1) WatL (GDE). Osprey: 23 Jul (1) WatL (GDE). Wild Turkey: 6 Jul (1 ad, 5 y) Cross Mtn (EHS). American Woodcock: 19 Jun (1) RNM, 5500' elev. (RLK). Spotted Sandpiper: 25 Jul (1) RNC (RLK). Pectoral Sandpiper: 25 Jul (1) StJ (RLK). BAIRD'S SANDPIPER: 25 Jul (1) RNC (RLK). Least Sandpiper: 22 Jul (1) StJ (RLK).

Owl-Nuthatch: Common Barn-Owl: 2 pairs with y at SHL (*fide* GDE, RL). Great Horned Owl: 25-26 Jun (2) Siam Valley, ELI (GOW). Hairy Woodpecker: fewer summer sightings in ELI area each season (GDE). Willow Flycatcher: 3-5 birds present through period, ELI area (RLK *et al.*). Alder Flycatcher: first seen 5 June, at least 5 singing males, RNM (GDE, RLK *et al.*). Horned Lark: 21 Jun (2) Round Bald, RNM (RLK). Tree Swallow: 9 Jun - 25 Jul (several young birds) RNC (RLK *et al.*). Red-breasted Nuthatch: several present on RNM, after absence during winter and spring (RLK *et al.*).

Wren-Finch: Winter Wren: present through period, RNM (RLK). HERMIT THRUSH: 10 Jun - 8 Jul (1-3 singing males) Roan High Knob, RNM (DRJ, RLK), no nests located. Golden-winged Warbler: 2-3 pairs through period at Roan Mtn. State Park (HHD, MD, SG, RLK). Swainson's Warbler: 16 Jun (1 singing male) Shady Valley (RLK). Grasshopper Sparrow: 1-2 pairs in ELI area (GDE), 2-3 pairs near SHL (RL). House Finch: 2-3 different sightings of young birds in ELI area (GDE, RLK, RL).

Locations: ELI—Elizabethton; RNC—Roans Creek, upper Watauga Lake; RNM—Roan Mountain, TN-NC; SHL—South Holston Lake; StJ—St. Johns Pond, ELI; WatL—Watauga Lake; WibL—Wilbur Lake.

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DESCRIPTION OF AMERICAN ROBIN TERRITORIES IN NORTHWEST TENNESSEE

T. David Pitts

In 1971 I began a study of the territories of American Robins (*Turdus migratorius*). The primary purpose of the study was to acquaint students in an introductory ornithology class with an avian territorial system. The robins on the campus of the University of Tennessee at Martin seemed an appropriate choice because they were numerous, accustomed to people, conspicuous, and, consequently, easy to observe without disrupting their normal behavior.

American Robins have been the subject of numerous studies in various parts of their range (*e.g.*, Howell 1942; Young 1951 and 1955; Klimstra and Stieglitz 1957; James and Shugart 1974). However, I am not aware of any descriptions of the territories of American Robins in Tennessee or elsewhere in the mid-south. It is for this reason that a summary of 7 years of observation is presented here.

DESCRIPTION OF STUDY AREA

The study was conducted on the campus of the University of Tennessee at Martin, Weakley County. Most of the academic and administrative buildings border, and surround, a rectangular 4.33 ha area called the Quadrangle. Results reported here will be restricted to the robin activities on the Quadrangle; however, in most years some observations were made outside, but adjacent to, the Quadrangle.

The Quadrangle is an open park-like area with a diversity of native and introduced trees and shrubs in a variety of sizes, although most of the trees are at least 50 cm in diameter. Virtually no understory is present, with the exception of scattered shrubs. Sufficient light penetrates to allow growth of grasses, such as Kentucky bluegrass (*Poa pratensis*) and Bermuda grass (*Cynodon dactylon*), which are mowed regularly. Numerous sidewalks cross and border the area, but no buildings or other structures are present on the area. All parts of the Quadrangle receive heavy pedestrian use; no vehicles, other than maintenance vehicles and bicycles, are allowed on the Quadrangle.

METHODS

During each of the years 1971-72, 1974-77, and 1980 my students and I attempted to determine the size of all the robin territories on the Quadrangle. Most of the robins apparently had 2 nests each year, but we did not study territories during the second nesting period except in 1972. Each year, with the exception of 1980, 1 or 2 students studied robin territories as a part of their undergraduate research participation projects. These students typically spent 4-6 hours each week from late March through mid-May observing the robins. In addition to these data, students in my ornithology classes were assigned specific pairs of robins to study for a minimum of 2 hours. We attempted to locate the nest in each territory and determine the stage of nesting when the territory was being studied. In addition to the student observations, I plotted some of the territories and recorded observations of robins on the study area and vicinity through the year.

Territories were plotted by observing the undisturbed robins, marking their positions on maps, and then connecting the outermost points. Territory sizes were calculated by cutting each plotted territory from the map, weighing each plotted territory, and then interpolating territory size from weighed map sections representing areas of known size.

Twenty-two adult robins, 16 males (M) and 6 females (F), were captured in mist nets on the Quadrangle. Three (2M, 1F) were captured in 1971; 2 (1M, 1F) in 1972; 6 (4M, 2F) in 1975; 7 (6M, 1F) in 1976; and 4 (3M, 1F) in 1977. In addition to the standard USFWS leg band, each of the 5 robins captured in 1971-72 received a yellow nylon wing tag as described by Hewitt and Austin-Smith (1966). Each wing tag carried a single 2.5 cm tall numeral applied with indelible ink. Each of the other captured robins was banded with a standard USFWS band and a unique combination of colored plastic leg bands.

RESULTS AND DISCUSSION

Robins were regularly present on the study area during March-September. During mild, sunny days in January and February, 1-6 robins could be seen; additional robins moved onto the study area in late February and early March. Possibly some of these birds were migrants. Territorial behavior intensified in mid- and late-March with some nest building in late March, especially in mild years. First clutches were typically laid in early April. By mid-August many of the robins moved off of the study area to molt in more heavily wooded areas.

We were not able to study all of the territories on the Quadrangle in most years, primarily due to lack of time. When we plotted the territories, conspicuous gaps were sometimes present on our maps. A review of our field notes allowed us to determine in most cases whether or not an area we had not studied was occupied by robins. Consequently, we were able to estimate the number of territories on the Quadrangle each year. Table 1 summarizes these findings. In 1975 we were able to plot all of the territories on the Quadrangle; virtually all of the Quadrangle was used by robins that year, as we presumed it was during the other years.

Mean territory size (Table 1) is based on territories whose boundaries were stable during the study even though some of these territories extended off of the Quadrangle. The mean size of 62 territories was 0.42 ha (1.04 acres) with a range of 0.12-0.84 ha (0.30-2.08 acres). The mean size of territories reported by Young (1951) in Wisconsin was 0.30 acres (0.12 ha) with a range of 0.11-0.60 acres (0.04-0.24 ha). Howell (1942) found that territories in New York averaged 0.28 acres (0.11 ha) in a dense population and 0.51 acres (0.21 ha) in a sparse population.

The reasons for the much larger territories in northwest Tennessee are not clear. Possibly the habitat was less suitable for robins than in the other areas. A

TABLE 1. Summary of characteristics of American Robin Territories on the University of Tennessee at Martin Quadrangle.

Year	No. territories studied	Mean size (ha)	Smallest territory (ha)	Largest territory (ha)	Total territories on Quadrangle [a]
1971	6	0.33	0.27	0.44	10.5
1972	6	0.55	0.41	0.75	8.4
1974	9	0.38	0.21	0.62	11.1
1975	11	0.51	0.19	0.84	9.1
1976	9	0.45	0.13	0.74	9.4
1977	11	0.34	0.12	0.60	11.3
1980	8	0.35	0.16	0.59	10.2
	62	0.42[b]			10.0[b]

[a] Estimated by censuses of robins and nests. [b] Mean for all seven years.

limited supply of preferred nest sites may have been available since evergreen shrubs, in which the robins frequently nested, were not abundant. This idea is supported by the observations of Young (1955) who found 60 of 79 nests in edge situations. Another factor possibly influencing territory size may be the short time robins have nested in northwest Tennessee. Mengel (1965:359) believes robins did not nest west of the Tennessee River before 1900. Robins now nest in the urban areas of northwest Tennessee but few nest in rural areas. Possibly as the breeding population increases, territory size will decrease.

Part of the variation among years in the mean size of territories may be attributed to the fact that different observers plotted territories most years. However, the smallest mean size (in 1971) and the largest mean size (in 1972) were reported by the same observer. Comparison of mean territory size with the number of territories (Figure 1) shows a negative correlation of 0.90 (r^2 = 0.81). Howell (1942) also found an inverse relaion between population size and territory size.

Table 2 summarizes the number of years each banded bird was present on the study area. With the small sample size it is not surprising that longer life spans were not recorded. Farner (1945, 1949) calculated an annual mortality rate of 46%, with robins nesting for the first, second, and third years making up 92% of the breeding population. Eleven of 22 (50%) robins banded on the Quadrangle were not observed again. Some of these birds, especially those captured in February and March, may have been migrants that were only temporarily stopping on the area to feed or roost. Several of the banded birds

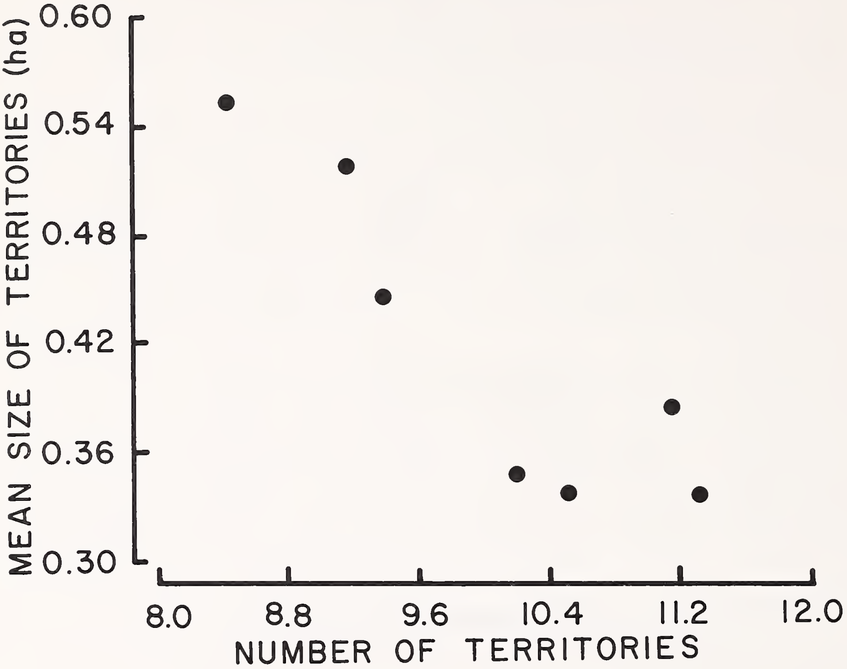

FIGURE 1. Comparison of territory size and number of territories of American Robins on the University of Tennessee at Martin Quadrangle.

TABLE 2. Number of years banded adult American Robins were present on the University of Tennessee at Martin Quadrangle.

Number of years present	Females	Males
0[a]	3	8
1	2	4
2	0	3
3	1	1

[a] Robins that were not observed on the study area after banding.

that did not have territories on the Quadrangle apparently had territories nearby. For example, a male banded on 6 March 1975 was not seen again until found dead on a road 300 m off of the Quadrangle on 19 July 1975. Also, a female banded on the Quadrangle in 1975, but not known to have nested there that year, did nest on the Quadrangle in 1976 and 1977. Likewise, a male banded in 1975 was not again seen on the Quadrangle in 1975 or 1976 but established a territory there in 1977.

Males roosted communally, as described by Howell (1940), at least during the early part of the nesting season. Some of the males we banded were captured near roosts during late evening when the robins had more difficulty evading mist nets. Almost certainly some of these birds possessed territories nearby.

Observations of 3 males provided some information about changes in size and shape of territories between nesting attempts and between years for individual robins. Male -02 defended a territory of 0.43 ha during the first nesting period of 1972 and a territory in the same area of 0.50 ha (16% increase) during the second nesting period of 1972. Male -03 maintained territories of similar size and shape and at the same location during the first and second nesting periods of 1971; however, we did not measure the size of his territory during the second period. In 1972, male -03 established territories at a new site adjacent to the Quadrangle. Both of these territories were at the same location and were approximately the same size and shape but we did not plot them. Male -09 defended a territory of 0.53 ha in 1976, and he returned to defend a territory of 0.48 (9% reduction) at the same location in 1977.

Our other observations concur with those of previous workers such as Howell (1942) and Young (1951). Both male and female defended the pair's territory, although the male was responsible for its establishment. Each pair nested within its territory, but the nest was rarely at the center of the territory. Both members of some pairs occasionally left their territory to feed. A damp area, about 100 m from the Quadrangle, with short grass and no shrubs or trees was used for feeding by many robins, including some from the Quadrangle. Overlapping of some territories occurred during at least 5 of the 7 years of our study. The highest frequency of overlapping was observed in 1975 when 6 pairs of territories were involved. The amount of overlapping by adjacent territories ranged from 0.03-0.08 ha in 1975; this amount was typical of other years. The largest amount of overlap constituted 21% of the smaller of the 2 territories involved.

SUMMARY

American Robin territories were studied for 7 years in northwest Tennessee. The mean size of 62 territories was 0.42 ha (1.04 acres) which was much larger than previously reported values from other areas. Territory size was inversely related to population density. Of 22 banded adult robins 6 are known to have lived through 1 nesting season, 3 are known to have lived through 2 nesting seasons, and 2 are known to have lived through 3 nesting seasons.

ACKNOWLEDGMENTS

I want to thank the following former students: Les Brown (1971 and 1972); Marty Jacobus (1974); Gordon Lum (1975); Allen Robison and David Pulliam (1976); and, David Armstrong and Ross Hester (1977).

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THE 1983 CHRISTMAS BIRD COUNT

RICHARD L. KNIGHT

This year 140 species were reported from 22 counts across Tennessee. The number of species is a record high; 139 species were reported in 1971 and 1978. The number of counts is near the average of the past decade. Red-necked Grebe and Black Scoter appear on a Tennessee CBC for the first time, bringing the total number of species to 207. Other notables include American Bittern, Tundra and Mute Swans, White-winged Scoter, Northern Goshawk, Merlin, and Dickcissel. Also notable are high counts of Pied-billed Grebe, Great Blue Heron, Killdeer, Ring-billed Gull, and Red-headed Woodpecker, among others. Three counts reported more than 100 species.

With two exceptions, the counts were lumped at the ends of the counting period (17 Dec. - 2 Jan.). Eight counts were conducted on the opening weekend and 12 on or about the last weekend. Reasons for this include the fact that Christmas occurred on the middle weekend and the severe, sub-freezing weather which struck just before Christmas. Counts held the first weekend reported low temperatures slightly below freezing; whereas counts held near the last weekend reported mostly single-digit lows. Precipitation was reported from only one count and snow cover from the two easternmost counts. Most counts held after Christmas reported considerable ice on lakes and rivers.

INFORMATION ON THE COUNTS

MEMPHIS — 18 Dec.; 0630 to 1630; overcast; temp. 31-36°F; wind N, 10-18 mph; 36 observers in 13 parties; 124 party hours (93 on foot, 31 by car); 193 party miles (73 on foot, 120 by car). Diane & William Bean, Carolyn Bullock, Fred Carney, Tina Carpenter, Robert Casey, Ben & Lula Coffey (compilers— 672 N. Belvedere, Memphis, TN 38107), Dollyann Daily, Julian Darlington, Fred Dickson, Helen Dinkelspiel, Jack Embury, Robert Endres, Jim Ferguson, Bill Fowler, Joe Guinn, Van Harris, Robert Ilardi, Susan Keeton, Dave Kesler, Patsy King, Selma Lewis, Mike Likens, George Payne, Bill & Rob Peeples, Martha Rast, Ernest Restivo, Arlo & Noreen Smith, Richard Taylor, Phillip Waldon, Martha Waldron, Wendell Whittemore, Jeff Wilson. The Snow Goose was of the blue form. The Bald Eagle was an immature. Two of the Northern Flickers were of the red-shafted form. In addition, there were 50,000 unidentified blackbirds reported. Seen during count period — Yellow-breasted Chat.

REELFOOT — 17 Dec.; 0530 to 1630; clear; temp. 24-42°F; wind NE, 0-5 mph; 13 observers in 5 parties; 45 party hours (26 on foot, 19 by car) plus 1.5 owling; 290 party miles (22 on foot, 268 by car) plus 8 owling. Ben & Lula Coffey, Wendell Crews, Kathy Davidson, Bill Fowler, Daniel Jacobson, Don & Gina Manning (compilers — Rt. 1, Box 303, McKenzie, TN 38201), George Payne, David Pitts, Mike & Wallace Todd, Scotty Wiggleton. Eight of the Snow Geese were of the blue form. Forty-three of the Bald Eagles and one of the Golden Eagles were adults. Good details submitted.

BUFFALO RIVER (Lawrence County) — 30 Dec.; 0630 to 1730; clear; temp. 3-20°F; wind N, 5-10 mph; 13 observers, 12 in 6 parties plus 1 at feeder; 47 party hours (21.5 on foot, 25.5 by car) plus 0.75 owling, 2 at feeder; 298 party miles (16 on foot, 282 by car) plus 2 owling. Andy Augustin, Helen & Lloyd M. & Lloyd W. Clayton, Jane Egly, David Ihrie, Chester & Dot McConnell, Royce Neidert, Damien & Dawn Simbeck, Don Simbeck (compiler — Rt. 2, Box 3A, Loretto, TN

THE 1983 CHRISTMAS BIRD COUNT

	Memp	Reel	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	High	Pick	Chat	Hiwa	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Common Loon	--	2	--	--	--	--	--	--	1	--	1	--	--	17	--	--	--	--	2	5	--	--
Pied-billed Grebe	20	4	--	2	3	--	--	2	19	--	4	2	3	122	151	24	--	--	11	12	6	--
Horned Grebe	--	5	--	--	--	--	--	--	55	--	--	--	--	95	2	3	--	--	--	2	--	--
Red-necked Grebe	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Dbl.-cr. Cormorant	30	8	--	--	2	--	--	--	--	--	--	--	--	3	3	--	--	--	2	--	--	--
American Bittern	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Great Blue Heron	11	35	1	15	37	2	1	11	32	3	45	8	1	46	292	69	--	3	41	6	7	1
Great Egret	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--
Green-backed Heron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	2	--	--	--
Blk.-cr. Night-Heron	--	--	--	--	--	--	--	--	12	--	--	--	--	--	1	8	6	--	1	--	--	--
Tundra Swan	--	--	--	--	4	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--
Mute Swan	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Snow Goose	1	11	--	--	1	2	--	--	--	--	1	--	--	--	3	--	--	--	--	--	--	--
Canada Goose	7	14M	124	34	222	250	30	213	1900	2	1700	--	--	--	2200	117	--	86	47	8	--	--
Wood Duck	21	35	--	--	6	3	--	5	--	5	--	--	--	10	--	2	--	3	--	--	4	--
Green-winged Teal	--	20	--	--	29	--	--	--	--	--	--	--	--	--	34	--	--	--	--	--	--	--
Amer. Black Duck	2	550	1	14	270	58	1	40	42	--	6	--	6	2	1300	16	--	156	5	--	34	--
Mallard	298	22M	24	242	2400	245	14	467	718	4	1100	14	50	326	16M	57	25	617	131	40	51	--
Northern Pintail	--	15	--	--	6	50	--	--	--	--	185	--	--	1	76	--	1	--	--	--	1	--
Blue-winged Teal	2	5	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Northern Shoveler	--	125	--	--	--	1	--	--	--	--	--	--	--	8	15	--	--	--	--	--	--	--
Badwall	3	1600	2	32	37	17	--	64	92	--	321	--	--	147	615	68	--	--	10	--	--	--
American Wigeon	4	850	2	1	25	--	--	31	--	3	378	--	--	21	198	4	--	--	--	--	--	--
Canvasback	--	10	--	--	--	1	--	6	16	--	--	--	13	--	--	--	--	--	5	--	1	--
Redhead	--	25	--	--	--	2	--	--	--	--	--	--	2	31	--	2	1	--	16	--	--	--
Ring-necked Duck	39	850	1	6	27	--	--	90	36	--	--	--	--	209	54	8	1	--	--	--	8	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	47	--	--	301	5	--	--	--	--	--	--	--
Lesser Scaup	4	200	--	--	15	1	--	120	61	--	--	--	125	44	47	14	--	--	6	--	1	--
Black Scoter	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
White-winged Scoter	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--
Common Goldeneye	8	30	--	1	--	--	--	3	170	1	--	--	1	91	4	2	--	--	16	--	--	--
Bufflehead	--	30	--	--	--	--	--	45	82	--	--	1	--	112	21	15	--	--	--	20	60	--
Hooded Merganser	--	30	--	--	1	--	--	--	39	--	22	--	--	6	139	28	--	--	--	--	1	--
Common Merganser	8	5	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	3	--	--
Red-br. Merganser	--	--	--	--	--	--	--	--	46	--	--	--	--	9	8	--	--	--	1	7	--	--
Ruddy Duck	3	1300	--	--	2	--	--	1	--	1	2	--	--	29	8	--	--	--	2	--	--	--
Black Vulture	--	15	10	25	12	87	32	17	--	10	12	--	--	--	17	--	--	1	4	12	--	--
Turkey Vulture	--	10	16	15	33	--	--	4	--	--	4	--	--	12	7	--	--	6	8	11	--	--
Bald Eagle	1	61	--	1	2	--	--	--	--	--	--	--	3	2	3	--	--	--	--	--	--	--
Northern Harrier	7	6	8	--	--	3	4	2	2	3	1	2	2	2	2	1	--	3	--	--	--	--

	Memp	Reel	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	High	Pick	Chat	Hiwa	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Sharp-shinned Hawk	1	--	--	3	3	--	2	--	2	1	--	--	--	3	2	2	1	--	1	1	2	--
Cooper's Hawk	--	1	1	1	--	2	2	--	1	1	1	--	--	5	2	1	--	3	2	4	--	--
Northern Goshawk	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--
Red-shouldered Hawk	2	4	--	8	9	--	--	1	5	--	1	--	--	5	11	2	--	--	--	5	1	--
Red-tailed Hawk	53	39	24	21	18	24	19	30	27	30	11	--	1	25	28	27	5	13	8	10	4	3
Rough-legged Hawk	--	2	--	--	--	--	1	--	--	--	2	--	--	--	--	--	--	--	1	--	--	--
Golden Eagle	--	2	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Kestrel	16	28	15	13	24	18	22	30	29	75	16	11	8	14	24	15	9	13	9	27	6	--
Merlin	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--
Wild Turkey	21	11	--	--	--	--	--	--	--	--	--	8	--	30	--	--	--	--	--	--	--	--
Northern Bobwhite	66	1	19	33	51	78	33	129	39	1	--	10	4	6	10	18	10	13	2	--	1	--
Virginia Rail	--	--	--	--	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sora	--	--	--	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Coot	40	3500	--	--	24	1	--	5	28	16	53	--	--	498	3000	249	--	1	28	50	--	--
Killdeer	142	75	15	3	122	9	7	34	27	17	4	1	4	597	101	173	23	20	16	11	84	--
Spotted Sandpiper	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Least Sandpiper	43	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--
Dunlin	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Snipe	16	1	6	--	--	26	1	6	3	3	--	--	--	9	14	9	1	--	--	--	8	--
American Woodcock	--	1	1	--	3	1	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--
Bonaparte's Gull	12	9	--	--	18	--	--	--	300	--	--	--	--	138	2	97	--	--	--	--	--	--
Ring-billed Gull	250	2300	--	1	33	--	--	3	3800	--	24	--	--	355	213	331	--	--	218	25	3	--
Herring Gull	4	6	--	--	--	--	--	--	67	--	--	7	5	21	4	12	--	--	--	1	--	--
Rock Dove	1	28	23	100	187	10	55	261	202	60	66	19	4	400	17	252	25	99	312	43	84	--
Mourning Dove	452	248	92	132	153	105	149	475	159	110	51	86	14	620	234	621	193	240	132	150	379	--
Common Barn-Owl	--	--	--	--	--	--	--	--	--	--	2	--	--	1	--	--	--	--	--	--	--	--
Eastern Screech-Owl	--	1	1	--	1	3	6	11	5	--	6	--	--	1	3	9	5	1	--	1	11	1
Great Horned Owl	1	7	3	1	2	9	9	13	2	--	4	--	2	1	5	6	--	--	--	6	2	1
Barred Owl	1	4	1	3	3	1	6	4	--	--	9	--	1	1	1	--	--	--	--	--	--	--
Belted Kingfisher	11	12	6	6	15	6	3	15	10	19	9	1	1	42	41	53	12	4	11	6	18	--
Red-headed Woodpecker	77	199	2	3	14	13	4	26	6	--	1	2	5	8	1	1	--	--	--	--	--	--
Red-bellied Woodpecker	123	72	30	45	33	42	30	93	49	6	12	9	13	45	33	48	12	30	11	5	4	--
Yellow-bel. Sapsucker	42	13	4	17	9	15	6	35	13	6	2	1	2	21	14	18	19	4	--	4	10	1
Downy Woodpecker	63	17	15	43	29	35	22	111	52	16	4	5	2	37	22	51	66	37	17	22	42	4
Hairy Woodpecker	14	6	--	7	7	7	5	12	9	6	4	--	2	5	6	3	19	5	8	1	6	1
Northern Flicker	129	62	42	27	35	22	14	64	70	27	9	4	2	44	34	57	8	7	15	12	13	1
Pileated Woodpecker	18	16	5	15	15	23	4	21	5	--	1	--	7	13	21	26	27	9	8	5	15	--
Eastern Phoebe	1	2	1	--	4	2	--	3	--	1	1	--	--	5	4	1	15	1	2	1	5	--
Horned Lark	63	44	461	100	75	12	--	58	8	--	--	11	--	1	1	3	--	1	--	--	--	--
Blue Jay	369	132	64	115	83	76	89	184	78	56	79	30	20	167	194	265	28	99	101	78	123	74
American Crow	170	344	221	163	501	79	191	3500	304	256	159	242	50	395	1100	889	377	212	124	205	616	171
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	--	--	1	2	8
Black-capped Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	*	--	--	--	--	--
Carolina Chickadee	141	134	36	122	54	52	77	313	153	63	32	6	16	134	126	224	292	105	95	63	114	16

	Memp	Reel	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	High	Pick	Chat	Hiwa	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Tufted Titmouse	141	134	36	122	54	52	77	313	153	63	32	6	16	134	126	224	292	105	95	63	114	16
Red-breasted Nuthatch	27	7	1	1	2	2	1	4	--	1	--	1	--	10	1	32	15	3	2	--	7	13
White-br. Nuthatch	1	9	12	20	5	2	--	59	3	--	2	3	7	18	8	33	47	3	21	15	22	9
Brown-headed Nuthatch	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--
Brown Creeper	24	17	--	4	5	1	6	24	16	--	--	--	--	9	4	18	17	5	--	3	8	--
Carolina Wren	113	54	15	33	36	45	29	97	44	17	10	5	6	84	82	176	81	41	52	19	92	16
Bewick's Wren	--	--	1	--	--	1	8	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--
House Wren	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Winter Wren	13	9	2	3	2	2	--	7	3	--	--	--	--	3	7	10	16	1	--	3	5	--
Golden-cr. Kinglet	49	15	14	6	14	8	14	19	23	2	--	--	--	42	40	90	108	13	21	20	57	3
Ruby-crowned Kinglet	31	16	14	6	3	3	11	6	4	2	1	--	--	38	16	18	1	1	1	2	17	--
Eastern Bluebird	--	21	46	49	67	54	60	82	27	45	52	8	39	77	135	88	63	34	47	18	28	11
Hermit Thrush	12	27	9	3	6	21	17	20	7	--	--	--	1	10	15	13	12	--	4	--	10	--
American Robin	1100	45	16	44	237	600	93	9000	1800	159	92	--	--	304	319	2000	120	112	4	1	128	18
Gray Catbird	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Mockingbird	165	35	62	88	43	41	42	159	124	69	36	28	8	96	107	245	17	45	46	52	47	2
Brown Thrasher	29	11	9	6	5	15	3	9	11	9	--	--	1	10	18	5	2	4	--	--	3	--
Water Pipit	4	--	3	1	--	--	--	50	51	--	--	--	--	1	184	53	--	--	--	--	--	--
Cedar Waxwing	228	168	84	230	62	39	13	243	296	17	54	--	--	190	594	515	42	72	26	15	300	--
Loggerhead Shrike	12	25	8	3	16	17	17	16	5	14	1	2	1	3	10	9	--	3	--	--	--	--
European Starling	3800	2600	1700	4100	2600	250M	11M	5200	11M	6X	2800	795	800	2100	1500	40M	486	3600	1100	1400	2600	16
Orange-cr. Warbler	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Yellow-r. Warbler	108	134	--	26	45	15	7	19	29	2	20	--	9	151	115	191	21	69	56	7	82	--
Pine Warbler	2	--	--	--	--	--	2	--	--	--	--	--	--	11	13	1	--	3	--	--	--	--
Palm Warbler	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--
Northern Cardinal	540	278	243	515	381	165	190	790	265	203	119	53	46	176	189	408	129	124	151	121	340	10
Dickcissel	--	--	--	--	--	--	--	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--
Rufous-s. Towhee	65	6	83	117	19	54	55	199	56	27	3	16	6	76	62	140	38	14	10	3	30	24
Amer. Tree Sparrow	--	--	--	4	--	--	1	1	--	--	--	--	--	--	2	--	1	--	--	--	--	--
Chipping Sparrow	--	1	21	--	--	--	--	--	--	--	2	12	--	--	11	--	--	--	--	--	--	--
Field Sparrow	160	53	400	13	35	94	149	320	47	48	7	7	12	148	184	202	84	66	31	94	55	8
Vesper Sparrow	16	--	--	--	--	--	--	6	--	--	--	--	--	--	2	--	--	--	--	--	--	--
Savannah Sparrow	47	14	8	--	48	14	3	49	50	--	--	--	--	20	38	26	--	--	15	--	--	--
Fox Sparrow	51	20	11	8	1	6	11	26	6	2	2	--	--	5	3	1	2	1	--	--	--	--
Song Sparrow	213	91	208	84	101	68	78	345	162	50	26	17	25	299	475	672	345	82	244	106	268	83
Lincoln's Sparrow	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Swamp Sparrow	147	71	52	10	63	59	5	46	51	1	--	--	--	23	94	14	10	--	10	--	3	2
White-thr. Sparrow	1300	405	149	261	102	255	120	660	177	37	35	32	50	295	591	1100	367	340	201	87	337	4
White-cr. Sparrow	28	6	40	4	1	104	62	37	16	31	10	--	--	16	2	23	--	43	7	29	--	--
Harris' Sparrow	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dark-eyed Junco	751	295	553	334	143	225	271	794	175	78	50	17	120	80	243	70	325	56	73	127	202	124
Lapland Longspur	--	10	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Red-winged Blackbird	91M	417	60	15	765	50M	141	1600	1100	1000	1000	2	--	419	274	15M	145	2	6	--	3	--
Eastern Meadowlark	277	122	201	40	72	55	60	183	112	60	46	40	22	214	158	130	28	91	35	29	61	--
Rusty Blackbird	906	10	--	4	--	2000	1500	80	64	--	--	--	--	45	28	3000	--	132	--	--	--	--

	Memp	Reel	Buff	Clar	Ashl	Colu	DRR	Nash	Hick	Murf	Leba	High	Pick	Chat	Hiwa	Knox	GSMN	Gree	King	Bris	Eliz	Roan
Brewer's Blackbird	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	15M	3200	1400	7000	42	100M	9500	894	77	1500	2100	1400	--	349	10	25M	470	66	18M	2000	5	--
Brown-headed Cowbird	1000	29	7	112	7	5000	245	167	189	71	803	1	1	297	15	15M	1	--	1	4	--	--
Northern Oriole	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Purple Finch	131	1	58	61	13	68	122	129	78	34	9	12	13	80	76	338	70	46	24	36	35	12
House Finch	--	--	--	13	--	40	27	16	19	122	42	40	--	19	--	60	12	97	12	42	22	--
Pine Siskin	29	--	--	3	--	92	--	48	--	--	5	--	--	124	31	67	46	--	25	--	29	--
American Goldfinch	252	48	105	180	171	140	200	664	104	87	71	15	3	464	243	431	100	15	52	114	114	8
Evening Grosbeak	--	2	4	2	15	39	--	10	8	2	--	7	--	--	4	15	377	23	--	--	1	196
House Sparrow	209	506	140	219	39	51	3	110	163	220	41	175	150	59	46	118	72	88	44	108	103	32
Total Species	91	102	71	76	84	81	67	87	87	64	72	46	51	104	102	88	63	63	71	63	68	32

Grand Total = 140 M = 1000 X = 1,000,000

38469), Wiley Willis. In addition, there was one *Accipiter sp.* and two *Buteo sp.* reported. Excellent details submitted.

CLARKSVILLE — 31 Dec.; 0700 to 1600; clear; temp. 2-32°F; wind light; 25 observers, 8 in 4 parties plus 17 at feeders; 31 party hours (14 on foot, 17 by car); 256 party miles (12 on foot, 244 by car). Ginny Clark, Adney Criss, Mike Filson (compiler — 1671 Paradise Hill Rd., Clarksville, TN 37040), Jerold Harris, Bill Hudson, Bill & Gloria Milliken, Ellen Walker. Names of feeder watchers not submitted. Good details on Mute Swan.

ASHLAND CITY — 17 Dec.; Rocky Milburn (compiler). Seen during count period - Northern Shoveler, House Finch, Pine Siskin. No other details submitted.

COLUMBIA — 31 Dec.; 0600 to 1700; clear; temp. 9-47°F; wind SE, 0-5 mph; 14 observers, 11 in 6 parties plus 3 at feeders; 27 party hours (12 on foot, 12 by car, 3 by canoe) plus 8 at feeders; 174 party miles (11 on foot, 156 by car, 7 by canoe). Kenneth Anderson, Mary Lucy & William Fuqua, Daniel Gray, Phyllis Herrmann, William Jernigan, Allyn Lay, Anne & Bedford Lochridge, Mary Lyles, Cleo & Mark Mayfield, George Mayfield, Jr. (compiler — 999 Sunnyside Dr., Columbia, TN 38401), Allen Pressnell. One of the Snow Geese was of the blue form.

DUCK RIVER RESERVOIR — 2 Jan.; 0500 to 1700; overcast; temp. 28-38°F; 11 observers. Kenneth Anderson, Glenda Bowman, Nancy Byer, William Jernigan, Anne & Bedford Lochridge, George & Rad Mayfield, Allen Pressnell (compiler — P.O. Box 1498, Columbia, TN 38401), Diane Pressnell, Eddie Seagraves.

NASHVILLE — 26 Dec.; 0500 to 1800; cloudy to overcast; temp. 0-20°F; wind S, 10-15 mph; 53 observers, 36-38 in 8 parties plus 15-17 at feeders; 95 party hours (53 on foot, 42 by car) plus 34 at feeders, 3 owling; 362 party miles (37 on foot, 325 by car) plus 3 owling. Jan Alexander, Linda Anderson, John Bates, Rick Beinecke, Jane Bridgman, Lyle Brownlee, Polly Clarke, Elizabeth Collins, Bonnie Coplin, Annella Creech, Jerry Drewry, Milbrey Dugger, John Ellis, Lulu Estis, Charles Farrell, Clara Fentress, Lucy Finch, Bettye & John Fort, Twinkle Gibbons, Ed Gleaves, Katherine Goodpasture, Mary Anne & Tom Guschke, Bob Hatcher, Louise Jackson, Edgar Jolly, Lee Kramer, Mildred Lawrence, Peter Lefferts, Portia Macmillan, Margaret Mann, E.K. Mattimore, Jane

Maynard, Rocky Milburn, Bob Parrish, Henry Parmer, Marge Patrick, Virginia Price, Elizabeth Queener, Larry Raye, Heather Riggins, Jim Snapper, Pat Stallings, Helen Sterling, Ann Tarbell (compiler — 6033 Sherwood Dr., Nashville, TN 37215), Barry Tillman, Lawrence Trabue, David Vogt, Kenneth Walkup, Miriam Weinstein, Betty Worden, Virginia Workman. Ruddy Shelduck, a common species among captive waterfowl, was deleted. In addition, there was one *Accipiter* sp. reported. Seen during count period — Ovenbird. Good details submitted.

HICKORY-PRIEST — 31 Dec.; 0430 to 1730; clear; temp. 4-35°F; wind E, 4-5 mph; 26 observers, 24 in 7 parties plus 2 at feeders; 63.5 party hours (30.5 on foot, 33 by car) plus 10 at feeders, 3 owling; 233 party miles (25 on foot, 208 by car). Frances Abernathy, Jan Alexander, Linda Anderson, Rick Bienecke, Dot & Paul Crawford, Jerry Drewry, Mary Anne & Tom Guschke, Carol Knauth, Lee Kramer, Margaret Mann, Rocky Milburn, Dick Newton, Steve Rannels, Larry Raye, Bob & Lillian Sharp, Jim Snapper, Pat Stallings (compiler — 406 N. 17 St., Nashville, TN 37206), Ellen Stringer, Dale & Janet Townsend, David Vogt, Miriam Weinstein, Betty Worden. In addition, there were 3 *Accipiter* sp. reported. Seen during count period — Green-winged Teal, American Wigeon, Pine Siskin.

MURFREESBORO — 17 Dec.; 13 observers, 12 in 5 parties plus 1 at feeder. Lou A. Erwin, C.E. Greever, Edith Haynes, Anne L. Hettish (compiler — 1018 Lawndale Dr., Murfreesboro, TN 37130), Richard E. & Wilma J. Hunter, Don & Linda Magee, Larry McFarlin, Gene & Ruth Odom, John Patten, Terry Witt. The Dickcissels were in a flock. The Northern Oriole was reported as the Bullock's form; however, the details did not eliminate the Baltimore form.

LEBANON — 17 Dec.; 0700 to 1630; clear; temp. 22-42°F; 8 observers. Earline & Vernon Berry, Fred Detlefsen, Ruth McMillan, Margaret Partee, Paulette Pope, Ray Pope (compiler — 211 W. Forrest Ave., Lebanon, TN 37087), Tressa Waters.

HIGHLAND RIM — 28 Dec.; cloudy; temp. 32-40°F; 12 observers, 10 in 3 parties plus 2 at feeders; 11.75 party hours plus 4 at feeders; 128 party miles. Carroll & Stan Barr, Katherine Cleekley, Marjory Harper, Phil & Nicky Medley, Erma Rogers, Mary Shelton, Jean Sullivan, Lillie Willard (compiler — 100 N. Washington, 2D, Tullahoma, TN 37388), Evelyn Wilson, Wanda Winnett.

PICKETT COUNTY — 31 Dec.; 0700 to 2000; clear; temp. 6-36°F; 2 observers in 1 party; 13 party hours; 26 party miles (1 on foot, 25 by car). David & Robbie Hassler (compilers — Rt. 1, Box 164A, Byrdstown, TN 38549).

CHATTANOOGA — 17 Dec.; 0500 to 1830; clear; temp. 30-45°F; wind N-NW, 0-20 mph; 31 observers, 23 in 10 parties plus 8 at feeders; 90 party hours (75 on foot, 15 by car) plus 25 at feeders; 321 party miles (83 on foot, 238 by car). Carl Adams, Nelson Bennett, Dale Blum, Katherine Boyles, Jim Brown, Louise Cash, Angela Davis, Ken & Lil Dubke, Paul Harris, John Henderson, Al Jenkins, Starr Klein, Sandra Kurtz, Barbara & Michael McMahan, Johnny Parks, Peter Robinson, Robin Rudd, Gene Ryther, Randy Stringer (compiler — 758 Emory Dr., Chattanooga, TN 37415), Carl Swofford, Don Williams. Caribbean Coot was deleted (see *Migrant* 53:82, 1982). The Bald Eagles were immature. In addition, there were 40 scaup sp., 8 scoter sp., and 1 swallow sp. reported. Seen during count period - Canvasback, Evening Grosbeak. Excellent details submitted.

HIWASSEE — 31 Dec.; 0500 to 1830; clear; temp. 5-30⁰F; 15 observers in 9 parties; 72.5 party hours (47 on foot, 24.5 by car, 1 by boat); 544 party miles (43 on foot, 491 by car, 10 by boat). Del Blum, Edith Bromley, Carl Campbell, Angela Davis, Ken & Lil Dubke, Dick Hughes, Al Jenkins, Tony Koella, Brian Locke, Dave Matthewson, Chuck Nicholson, Johnny Parks, Robin Rudd, Boyd Sharp, Randy Stringer (compiler). The Snow Geese were of the blue form. One of the Bald Eagles was an adult. In addition, one *Accipiter sp.* was reported. Excellent details submitted.

KNOXVILLE — 18 Dec.; 0445 to 1745; clear to partly cloudy; temp. 29-46⁰F; wind light & variable; 32 observers in 13 parties; 97 party hours (60 on foot, 37 by car) plus 4 at feeders, 10 owling; 537 party miles (60 on foot, 477 by car) plus 60 owling. Betty Adams, Laurie Armstrong, Richard Bateman, Frank Bills, Sharon Bostick, Betty & Jim Campbell, Howard Chitwood, Bill Cowart, Marcia Davis, Barbara Finney, Linda Fowler, Louise Fuller, Rebecca Hammitt, Paul Hartigan, Audrey & Ron Hoff, Joseph Howell, Hal Hubbs, Ken McLean, Charles Nicholson, Holly Overton, J.B. Owen, Paul Pardue, Don Powers, Mark Reeves, Stephen Satterfield, Boyd Sharp, Nancy Shepard, James Tanner (compiler — Rt. 28, Box 155, Knoxville, TN 37920), Keith Watson, Roland Wauer. Seen during count period - Northern Shoveler, Canvasback, Ruddy Duck. Good details submitted.

GREAT SMOKY MOUNTAINS NATIONAL PARK — 2 Jan.; 0530 to 1715; partly cloudy to overcast; temp. 26-46⁰F; 25 observers in 12 parties; 88.5 party hours (64.5 on foot, 24 by car); 225.5 party miles (67.5 on foot, 158 by car). Betty Adams, John Burkhart, Howard Chitwood, Marcia Davis, Don DeFoe (compiler — GSMNP, Gatlinburg, TN 37738), Dale & Linda Fowler, Louise Fuller, Rebecca Hammitt, David Hankins, Paul Hartigan, David Highbaugh, Joe Howell, Tony Koella, Bill McNutt, Charles Nicholson, Holly Overton, J.B. Owen, Truett Patterson, Stephen Satterfield, Boyd Sharp, Nancy Shepard, Lillian Smathers, Jim Tanner, Keith Watson, Ro Wauer. In addition, one scaup sp. was reported.

GREENEVILLE — 31 Dec.; 0700 to 1700; clear; temp. 8-38⁰F; wind 0-5 mph; 23 observers, 16 in ? parties plus 7 at feeders; 31 party hours; 95 party miles (13 on foot, 82 by car). Martha Bible, Ben & Phine Britton, Connie & David Bryant, Douglas Caruthers, Marjorie Earnest, King & Margaret Gaut, Marguerite McLeod, Richard & Willie Ruth Nevius, Doug Ratledge, Helen Spees (compiler — P.O. Box 356, Greeneville, TN 37743), Royal Spees, Virginia Williams. Names of feeder watchers not submitted. Common Redpoll was deleted; no details were submitted. Seen during count period — Great Horned Owl.

KINGSPORT — 31 Dec.; 7 observers in 5 parties. Fred Alsop, Betsy & Robert Baker, Helenhill Dove, Tom Finucane (compiler — 1434 Watauga St., Kingsport, TN 37660), E.E. Scott, Arthur Smith. Adequate details on Rough-legged Hawk.

BRISTOL — 31 Dec.; 9 observers in 4 parties; 24 party hours; 227 party miles. Wallace Coffey, Glen Eller, Bert & Ken & Loraine Hale, Tom Laughlin, Richard Lewis (compiler — Rt. 3, Box 470, Bristol, TN 37620), Herbert & R.E. van Nostrand.

ELIZABETHTON — 17 Dec.; 0415 to 1745; overcast to clear; temp. 32-46⁰F; light snow/rain before dawn; 2 in. snow at high elevations; 21 observers in 7 parties; 56 party hours (28.5 on foot, 27.5 by car) plus 2.75 owling; 323.5 party miles (17.5 on foot, 306 by car) plus 22 owling. Martha Dillenbeck, Helenhill Dove, Glen Eller (compiler — Rt. 3, Box 52, Grandview Terrace, Elizabethton, TN 37643), Harry Farthing, Elizabeth Funkhouser, Sally Goodin, Dick & Mildred Hegler, Lois Herndon, Ralph Keffer, Rick Knight, Joy Kyle, Richard Lewis, Dick Lura, Ed Schell, Rita Scher, Glenn Swofford, Gary Wallace, Barbara Walsh, Frank Ward, Jane Whitehead. Seen during count period — Ruddy Duck, Cooper's Hawk, American Coot, Horned Lark, Loggerhead Shrike. Watauga Lake was 80 ft. below its normal mid-winter level.

ROAN MOUNTAIN — 1 Jan.; 0630 to 1630; clear; temp. 17-42°F; 1 in. snow at mid-elevations on Tenn. side only; 5 observers in 2 parties. Glen Eller (compiler), Dick Hegler, Rick Knight, Ed Schell, Glenn Swofford. Seen during count period — Cooper's Hawk, Ruffed Grouse, Rock Dove, Red-bellied Woodpecker, Eastern Meadowlark.

DAVE MATHEWSON JR 3/83

ROUND TABLE NOTES

BLACK-LEGGED KITTIWAKE IN STEWART COUNTY, TENNESSEE — On 10 December 1983, while watching gulls at Bard's Lake, at Brandon Springs Group Camp, Land Between the Lakes, Stewart County, Tennessee, I noticed a solitary gull that appeared different from the numerous Ring-billed Gulls (*Larus delawarensis*) present. At first I thought it might be a Bonaparte's Gull (*L. philadelphia*), but it had a neck band. As it then flew, I realized that it was a Black-legged Kittiwake (*L. tridactyla*). It was an immature bird, with a black "W" pattern across the back and wings, a black half-collar, a black spot behind the eye, and a black bill.

After I watched it and an immature Oldsquaw (*Clangula hyemalis*) for a while, I hurried home and telephoned Jerry Drewry of Nashville. He arrived in about 2 hours, and we both saw the bird. Other birders were notified that evening, and on 11 December, several birders from across the state saw the gull and confirmed the identification. I last observed the bird on 12 December.

This is the fourth and most westerly record of a Black-legged Kittiwake in Tennessee. Previous occurrences were on 21-22 August 1971 at Percy Priest Lake (Bierly, Bird Finding in Tennessee, 1980), 7-13 December 1971 near Chickamauga Dam, Hamilton County (Williams, *Migrant* 43:27, 1972), and on 10 October 1981 at Cookeville, Putnam County (Bierly, *Migrant* 53:16, 1982).—DONALD W. BLUNK, Rt. 2, Box 284-C, Dover, TN 37058. Accepted 12 July 1984.

A YELLOW RAIL IN PICKETT COUNTY, TENNESSEE — My husband David and I were driving home at 1615 on 8 December 1983 when we saw a small rail-like bird running alongside the road about 3 m in front of our car. We saw this bird at a creek crossing about 0.2 km south of our home in the Lovelady community in northwest Pickett County, Tennessee. We stopped the car immediately and watched the bird cross the paved road in front of us and then start pecking fine gravel like a small chicken. It seemed unafraid of the car so we were able to get a very close look using 8 power binoculars in fair light. We made verbal notes of the following identifying marks of the bird: black and yellowish horizontal stripes on the back with lighter perpendicular stripes on the sides, buff on the breast and beneath the tail, lighter buff on the throat, dark on top of the head with a darkish spot on the cheek. The bill was short and greenish-yellow, and the legs were of the same color. As we moved slightly, the bird ran into a grassy shallow ditch and disappeared. As we drove slowly on, I looked back and saw it creep back out to the same spot and start pecking gravel again. We did not see the bird fly. After we arrived home, I walked back to the creek crossing but did not see the bird. David searched the area the next morning but failed to see the bird.

In comparing our notes on the bird with the descriptions in Peterson's Field Guide, Robbins *et al.* Birds of North America, and the Audubon Society Field Guide, we knew we had seen a Yellow Rail (*Coturnicops noveboracensis*). It was noticeably smaller and showed none of the tail-flicking behavior described for an immature Sora (*Porzana carolina*). Although this was the first time either David or I had observed a live Yellow Rail, we had both previously examined a Yellow Rail specimen. This is apparently the first December record of a Yellow Rail in Tennessee, and there are no published November records.—ROBBIE C. HASSLER, Rt. 1, Box 164-A, Byrdstown, TN 38549.

CLIFF SWALLOWS STILL NESTING ON SWALLOW BLUFF, DECATUR COUNTY, TENNESSEE — One of the earliest reports of nesting Cliff

Swallows (*Hirundo pyrrhonota*) in Tennessee was at Swallow Bluff, along the Tennessee River in Decatur County (Ganier and Weakley 1936, Clebsch 1941). At least 90 nests were found under an overhanging cliff at this site. A note in *The Migrant* in 1943 (Anon. 1943) stated that the overhanging cliff at Swallow Bluff was dynamited into the river in preparation for the impoundment of Kentucky Reservoir. Weakley (1945) noted the absence of Cliff Swallow nesting habitat at Swallow Bluff and observed that the birds had moved elsewhere. During the 1978 Tennessee Ornithological Society foray in Decatur County (Nicholson 1980), Kenneth H. Dubke and I tried to inspect Swallow Bluff for nests, and we did not observe either nests nor suitable nesting habitat. We did not have a boat, however, and were unable to inspect all the bluffs in the area.

On 16 November 1983, Judith B. Powers and I searched by boat all the bluffs along the Tennessee River from Saltillo (River Mile 172.3) downstream to Shannon Landing (RM 161). Under an overhanging bluff adjacent to Swallow Bluff Cave (RM 169.3), we observed about 120 intact Cliff Swallow nests, which appeared to have been used during the 1983 nesting season. Remains of many nests from previous years were evident. Both upstream from this high bluff and downstream near Swallow Bluff Landing (RM 168.4) are low bluffs, no more than 3 m above the lake level, which show evidence of having been dynamited in the past.

Under a high overhang at RM 168.8, we observed many mud rings, evidence of the former presence of a large Cliff Swallow colony. We observed no evidence of recent swallow nesting at this site. Neither this site, nor the active site adjacent to Swallow Bluff Cave, appear to be the site illustrated by Ganier and Weakley (1936). We found no evidence of Cliff Swallow nesting, nor suitable nest habitat, along the riverbanks downstream as far as RM 161. There are several colonies under bridges in this area (Nicholson 1980, 1981, Alsop 1981). We observed no suitable nesting habitat on Swallow Bluff Island - the few ''bluffs'' present on the island are all eroded dirt banks, unsuitable for Cliff Swallow use. Alsop's (1981) reference to Cliff Swallow nests on Swallow Bluff Island is probably incorrect.

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GANIER, A.F., AND S.A. WEAKLEY. 1936. Nesting of the Cliff Swallow in Tennessee. Migrant 7:29-30, 41.

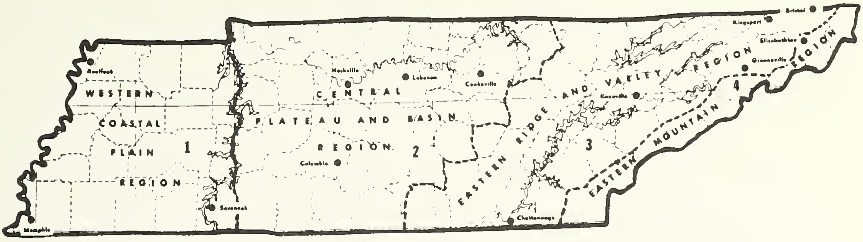
NICHOLSON, C.P. 1980. Birds of Decatur County. Migrant 51:1-9.

NICHOLSON, C.P. 1981. Addenda to ''Birds of Decatur County''. Migrant 52:52.

WEAKLEY, S.A. 1945. White Pelicans and Cliff Swallows on Tenn. River. Migrant 16:33-34.

CHARLES P. NICHOLSON, Div. of Land and Economic Resources, Tennessee Valley Authority, Norris, TN 37828. Accepted 1 August 1984.

THE SEASON



FALL MIGRATION: 1 AUGUST - 30 NOVEMBER 1983

Drought conditions extended from the summer into October in western and middle Tennessee, but abated somewhat in late September in East Tennessee. Temperatures were above average much of the period, and several record late dates were set. Conversely, some record early dates were also established.

There were several reports of rare or accidental species. The highlight was a Rufous Hummingbird at Murfreesboro, the first verified occurrence of the species in the state. Adding to this excitement was an as yet unidentified *Selasphorus* hummingbird seen and photographed at Memphis. An American Swallow-tailed Kite and a Sharp-tailed Sparrow were observed at Memphis, and an Eared Grebe was found at Kingston Steam Plant on the record early date of 26 August. Two Northern Saw-whet Owls were found in middle Tennessee. Wood Storks were observed at Knoxville and in the vicinity of Cross Creeks National Wildlife Refuge. This species formerly occurred in Tennessee with some regularity, but there have been few reports in recent years, and the United States population is presently proposed for listing as an endangered species. Many other interesting observations are to be found in the following reports. — CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION — The Ensley Sewage Lagoons near Memphis attracted a large number of shorebirds again this season. New early arrival dates were recorded for the Marsh Wren and LeConte's Sparrow. The region's most unusual visitor was probably a Sharp-tailed Sparrow near Memphis.

Grebe-Falcon: Horned Grebe: 30 Oct. (3) SFP, Mississippi River (JGB, JRW). Double-crested Cormorant: 30 Oct (1130) to 26 Nov (1500) roosting each evening, MUL (BBC, LCC). Oldsquaw: 20 Nov (1) MEM, Mississippi River (WAJ, JRW), first Shelby Co. record. Osprey: 24 Sep (1) SFP (DAD, JRW); 9 Oct (1) Hopefield TN/AR (DRB, BBC). AMERICAN SWALLOW-TAILED KITE: 19 Sep (1) MEM (JRW). Mississippi Kite: 13-14 Aug (2) Sugar Creek, RIL (JBG); 21 Aug (1), 4 Sep (1) PON (CHB), first Decatur Co. records and first records along Tenn. River; 11 Sep (1) Golddust, Lauderdale Co. (HAS). Northern Harrier: 26 Sep (1) MEM (JRW). Sharp-shinned Hawk: 27 Sep (1) Fisherville, Shelby Co. (LCC). Cooper's Hawk: 23 Oct (1) Somerville (JDV, BS). PEREGRINE FALCON: 30 Oct (1) MUL (BBC, LCC).

Rail-Tern: Virginia Rail: 9 Oct (1) ESL (JRW); 2 Nov (1) Raleigh, Shelby Co. (JLS). Common Moorhen: 24 Sep (1) MEM (BBC); 5 Oct (1) MEM (JRW). Piping Plover: 10 Aug (1) Britton Ford, Henry Co. (AHH, NRH, RVM, DM, TJW). WILLET: 8 Aug (3) Pace Point, Henry Co. (CGD). Sanderling: 3 Sep (5) RIL (JBG). Western Sandpiper: 23 Oct (1), 29 Oct (1), 6 Nov (4) ESL (JRW). Least Sandpiper: 3 Sep (30) RIL (JBG); 23 Oct (2350) ESL (DAD, JRW); 29 Oct (1480) ESL (JRW); 6 Nov (1350) ESL (JRW). Dunlin: 8 Oct (1), 9 Oct (2) ESL

(JRW); 19 Oct (25) BSU (JD); 23 Oct (11) ESL (DAD, SS, JRW); 29 Oct (7), 6 Nov (11) ESL (JRW). Stilt Sandpiper: 8 Oct (11) ESL (JRW); 9 Oct (14) ESL (JRW, MGW); 16 Oct (5) ESL (JRW); 23 Oct (4) ESL (DAD, JRW); 29 Oct (6), 6 Nov (6) ESL (JRW). Buff-breasted Sandpiper: 4 Sep (1) BSU (CD, RD). Wilson's Phalarope: 13 Aug (1) ESL (BBC, LCC). Least Tern: 3 Sep (30) Sugar Creek, RIL (JBG).

Woodpecker-Siskin: Red-headed Woodpecker: 30 Oct (341) SFP (MTOS); 21 Sep (15), 22 Nov (108) Hatchie Nat. Wildl. Ref., Haywood Co. (BBC, LCC, WLW). Tree Swallow: 30 Oct (3000), 6 Nov (1200) MUL (BBC, LCC), migration was late and sparse. Red-breasted Nuthatch: 25 Sep (1) PON (CHB). Marsh Wren: 25 Sep (1) ESL (HBD, JLL, DM). Gray Catbird: 28 Nov (1) MEM (BBC). Solitary Vireo: 30 Oct (1) SFP (LCC). Philadelphia Vireo: 24 Sep (1) LaGrange, Fayette Co. (JRW); 24 Sep (1) PON (CHB). Golden-winged Warbler: 24 Sep (1) PON (CHB). Vesper Sparrow: 30 Oct (4) MUL (BBC, LCC); 20 Nov (3) MUL (JRW). LeConte's Sparrow: 22 Oct (1) MEM (SKB); 27 Oct (1) Shelby Co. Penal Farm (JRW). SHARP-TAILED SPARROW: 22 Sep (1) north of SFP (RTC). House Finch: 12 - 30 Nov (2 males) MEM (EC, JRW). Pine Siskin: 16 Nov (35) Herb Parson Lake, Fayette Co. (HBD, SSL).

Locations: BSU—Big Sandy Unit, Tenn. Nat. Wildl. Ref., Henry Co.; ESL—Ensley Sewage Lagoons, Shelby Co.; MEM—Memphis, Shelby Co.; MUL—Mud Lake, Shelby Co.; PON—Ponderosa, Decatur Co.; RIL—Richardson Landing, Tipton Co.; SFP—Shelby Forest State Park, Shelby Co.

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CENTRAL PLATEAU AND BASIN REGION — Although fall in the region was abnormally dry from August until early October, it was also warm, and the warm weather produced a panoply of late-lingering species, a number of record late dates, and several notable late nesting records. In addition, vagrants and rare species staged a series of appearances in middle Tennessee with one species recorded in the state for the first time.

Among the late lingerers, 3 species of swallows were present into November, with one of them setting a record late date for the Nashville area and another coming within a day of doing so. Tree, Northern Rough-winged, and Barn Swallows joined many other summer residents and fall transients in a prolonged departure from the region. Yellow-billed Cuckoos stayed into mid-November, and Common Nighthawks into late November, while several parulids remained through the first week of that month. Only one record early fall date - for Ruddy Duck - was established, but 6 species set record late dates: Piping Plover, Stilt Sandpiper, Olive-sided Flycatcher, Tree Swallow, Kentucky Warbler, and Rose-breasted Grosbeak. Although some intriguing late nesting evidence was recorded for Scissor-tailed Flycatcher and Bewick's Wren, the sighting of a juvenile Bald Eagle in August at Cross Creeks National Wildlife Refuge was undoubtedly the most significant breeding record of the season. This bird's presence at that time was strong circumstantial evidence that the species had nested nearby, the first successful nesting of Bald Eagles in the state since 1961. The discovery of a nest nearby, later in the winter, confirmed this breeding record.

Rareties highlighted much of the season with the Rufous Hummingbird discovered by Lou A. Erwin in Murfreesboro being the most notable sighting, since it established a first state record. Other seldom seen birds sighted during the autumn were Red-throated Loon at Wood Reservoir, Wood Stork at Cross Creeks National Wildlife Refuge and vicinity, Black Scoter on Old Hickory Lake, Northern Saw-whet Owl in Nashville and Montgomery County, and Western Kingbird at Percy Priest Lake.

Sincerest thanks go to the more than 60 field observers mentioned below for generous sharing of records and for spending time afield to make them possible.

Loon-Stork: RED-THROATED LOON: 13 Nov (1) WDR (DRJ, CGD), about 4th regional record with nearly all from same locale. Common Loon: 7 Nov (20) OHL, SUC (CGD); 13 Nov (75) WDR (DRJ, CGD); 20 Nov (43) PPL, DVC (F. Joseph McLaughlin, John P. McLaughlin); reported seasonal highs for these locations. Horned Grebe: 18 Nov (25) WDR (KHD, LHD), largest reported concentration. Double-crested Cormorant: present in normal numbers; no concentrations. White Pelican: 13 Aug (1 imm) Ashland City, CHC (CGD, RJM), about 3rd NA record, perhaps a result of the mild cold front which passed through the region 12 Aug. American Bittern: 28 Aug (1) Hillsboro Pond, CFC (MLM); 29 Sep (1) MUR (ALH, REH, WJH); less common than normal. Great Blue Heron: 27 Aug (52) CCNWR (MGW *et al.*); 2 Sep (22) LWP (DTC, JPC); seasonal high reported for these locales. Great Egret: 23 Oct (4) CCNWR (DWB); 26 Oct (26, flying over) RDL (JCM), high number and late; 19 Nov to EOP (2) DRU (JRS *et al.*), very late. Snowy Egret: 28 Aug (1) DRU (MGW *et al.*), uncommon fall visitor. Little Blue Heron: 27 Aug (5) CCNWR (MGW *et al.*); 28 Aug (13) DRU (MGW *et al.*); 28 Aug - 13 Sep (1 imm) LWP (DTC, JPC); few reports. Cattle Egret: 23 Oct (3), 29 Oct (1) CCNWR (DWB, CGD), late. Black-crowned Night-Heron: 14 Aug (9) GSP (DTC, JPC); 1-2 Oct (38) NA fall count (NTOS), about normal numbers. Yellow-crowned Night-Heron: 14 Aug (1) GSP (DTC, JPD); 27 Aug (7) CCNWR (MGW *et al.*); last reports for season. WOOD STORK: 26 Jul - 1 Sep (1-3) CCNWR (Fabian Romero, E.D. Barnes *et al.*); 10, 14, 20 Sep (1, photographed) Dotsonville, Montgomery Co. (Margaret Buckner); last regional record (1975) also in Stewart Co. (*Migrant* 46:79, 1975), and prior to that one in 1955 in Tullahoma (*Migrant* 26:43, 1955).

Pintail-Falcon: Northern Pintail: 28 Aug (1) CCNWR (JRS *et al.*), first report of season. Blue-winged Teal: 2 Aug (2) MEC (DFV), first of season; 7 Sep (400+) GSP and LWP (DTC, JPC), high numbers; 25 Oct (6) LWP (DTC, JPC), last report. Redhead: 13 Nov (300) WDR (DRJ, CGD), high number. Canvasback: 18 Nov (2) WDR (KHD, LHD), only report. Greater Scaup: 30 Oct (1) OHL, DVC (NTOS); 13 Nov (3) PPL, DVC (NTOS); only reports. BLACK SCOTER: 6 Nov (1) OHL, SUC (Ruth Griffin *et al.*), 3rd NA and regional record, about 9th for state. Ruddy Duck: 14 Oct (4) RDL (Lillian V. Hunt), new NA early fall date. Turkey Vulture: 12 Nov (200+) LHL (DJS), probably migratory movement, though possible a winter roost nearby; large active roosts near Gallatin (DTC, JPC), and Columbia (KGA), composed mainly of Black Vultures, though a few TV mixed in. Osprey: 4 Nov (1) GSP (DTC, JPC), last report. MISSISSIPPI KITE: 26 Aug - 13 Oct (1 subadult) CCNWR (Chip Grafe, DWB *et al.*), first Stewart Co. record. BALD EAGLE: 15 Aug (1 juv, 2 ad) CCNWR (*fide* Vicki C. Grafe), strong evidence suggests this juv fledged from a nearby nest; Carrell L. Ryan observed juv and believed that it had fledged on or one day before 15 Aug (*fide* Robert Hatcher); 14-23 Sep (2 ad) LHL (*fide* DJS); 5-7 Nov (1 imm) Saunder's Ferry Park, OHL, SUC (CGD *et al.*), bird carried a green wing tag (#5) on right wing; 18 Nov (1 imm) WDR (KHD, LHD); 18 Nov (1 ad) Williamsport, Maury Co. (KGA). Northern Harrier: 28 Aug (1) CCNWR (LFK *et al.*), first of season; 15 Oct (1) Hillsboro, CFC (ER); 25 Oct (1 male) GSP (DTC, JPC); few reports. Sharp-shinned Hawk: 1-2 Oct (8) NA fall count (NTOS); 25 Sep - 28 Oct (1-2) BAH (RWS); 24 Nov (1) LEF (SJS, BHS); few reports. Cooper's Hawk: 18 Sep (1) LEF (SJS); 22 Sep (1) MUR (*fide* ALH); 1-2 Oct (1) NA fall count (NTOS); 4, 13 Nov (1) GSP (DTC, JPC); few reports. Broad-winged Hawk: 1-2 Oct (1) NA fall count - 1 at LEF (NTOS, SJS); no migrating flocks reported. Rough-legged Hawk: 20 Nov (1) northern Maury Co. (Barbara Finney). Golden Eagle: 19 Nov (1) DRU (JRS *et al.*); 20 Nov (1) CCNWR (DWB); 20 Nov (5) near Woodbury, Cannon Co. (RCH, David Hassler); notable concentration of sightings within same weekend. Merlin: 1 Oct (1) Shelby Bottoms, DVC (MPS, Barbara Harris). Peregrine Falcon: 2 Oct (1) Craggie Hope, CHC (*fide* CGD); 22 Oct (1) LHL (CGD *et al.*); 23 Oct (1) Ashland City, CHC (RJM).

Rail-Tern: Virginia Rail: 24 Sep (1), 1 Oct (2) Pardue's Pond, DIC (JRS *et al.*). Sora: 28 Aug (1) DRU (LFK *et al.*), first of season; 11 Oct (1) MUR (TJW). Common Moorhen: 11 Sep (1 imm, found injured) MUR (*fide* ALH); 20 Oct (1 imm, road casualty) Columbia (William N. Jernigan). Sandhill Crane: 26 Oct (82), 29 Oct (several heard), 2 Nov (several heard), and 22 Nov (several heard) Byrdstown, PIC (RCH); 6 Nov (3) BAH (RWS); 19 Nov - EOP (1) DRU (JRS *et al.*), last sighting far to west of usual migration corridor. Black-bellied Plover: 19 Nov (2) DRU (JRS *et al.*). Lesser Golden Plover: 2 Oct (1) MEC (JRS); 19 Nov (1) DRU (JRS *et al.*), stragglers into Nov are occasional. Semipalmated Plover: 30 Jul (2) GSP (DTC, JPC), first of season; 20 Oct (1) LWP (DTC, JPC), last of season. PIPING PLOVER: 12-16 Aug (1) GSP (LFK *et al.*); 10-15 Oct (1) GSP (DTC, JPC), new NA late fall date; species seen regularly in recent years. Killdeer: 6 Aug (110), 22 Aug (46) MEC (DFV, HEP); 30 Aug (52) GSP (DTC, JPC); seasonal highs for these sites. Greater Yellowlegs: 17 Jul (1) Bear Creek WMA, SWC (DWB), first of season; 24 Sep (1) LHL (DJS, Lloyd and Helen Clayton); 25 Sep (15) LWP (DTC, JPC), seasonal high for region; 12 Nov (1) LWP (DTC, JPC), last of season. Lesser Yellowlegs: 24 Jul (7) GSP (DTC, JPC), seasonal high; 18 Nov (1) MOP (ARL, OBL), last of season. Solitary Sandpiper: 19 Jul (1) MEC (DFV), first of season. Upland Sandpiper: 23 Jul (3) Ravenwood Golf Course, DVC (CGD); 31 Jul - 3 Aug (up to 5) Metro Airport, DVC (*fide* SJS); only reports. Sanderling: 8 Aug (1) GRP (DTC, JPC), first of season; 5 Sep (10) CCNWR (DWB), seasonal high; 2 Oct (1) MEC (JRS), last of season. Semipalmated Sandpiper: 24 Jul (9) GSP (DTC, JPC), first of season; 7 Sep (110) LWP (DTC, JPC), seasonal high; 10 Oct (1) LWP (DTC, JPC), last of season. Western Sandpiper: 10 Aug (1) CCNWR (TJW, RVM *et al.*); 13 Aug (5) GSP (DTC, JPC); 4 Sep (4) LWP (DTC, JPC); only reports. Least Sandpiper: 24 Jul (4) GSP (DTC, JPC), first of season; 13 Sep (71) GSP (DTC, JPC), seasonal high; 24 Sep (2) LHL (DJS *et al.*); 12 Nov (34) LWP (DTC, JPC); 18 Nov (5) MOP (ARL, OBL); 24 Nov (12) MEC (HEP), last of season. Baird's Sandpiper: 10 Aug (1) CCNWR (TJW, RVM *et al.*); 12 Aug (1) GSP (DTC, JPC); 28 Aug (1) CCNWR (LFK *et al.*); 10 Oct (1) GRP (DTC, JPC); 22 Oct (1) LHL (CGD *et al.*), late; movement of ad and imm respectively, probably denoted by Aug and Oct records. Pectoral Sandpiper: 17 Jul (1) Bear Creek WMA, SWC (DWB), first of season; 13 Sep (15) LWP (DTC, JPC), seasonal high, but very low; 18 Nov (2) MOP (ARL, OBL), last of season. Dunlin: 17 Aug (3) MEC (HEP), see Addenda; 20 Oct (10) LWP (DTC, JPC); only reports of this late-migrating shorebird. Stilt Sandpiper: 31 Jul (2) PPL, RUC (RDP), first of season; 28 Aug (13) DRU (MGW *et al.*), seasonal high; 15 Oct (2) 1 mi E of Gallatin (DTC, JPC), new NA late fall date. Buff-breasted Sandpiper: 28 Aug (1), 29 Aug (3), 30 Aug (1) GSP (DTC, JPC); 28 Aug (1), 5 Sep (2) CCNWR (DWB *et al.*); 28 Aug (1) DRU (MGW *et al.*); 30 Aug (1) MEC

(DFV), first NA record in 5 years; note concentrated period of migration. Dowitcher sp.: 13 Aug (1) DRU (SJS, BHS); 7 Sep (1) LWP (DTC, JPC); 15 Oct (1) 1 mi E of Gallatin (DTC, JPC); only reports. Common Snipe: 29 Aug (1) GSP (DTC, JPC), first of season. Wilson's Phalarope: 20-21 Sep (1) MEC (JRS, RJM), first in NA in 3 years. Laughing Gull: 10 Nov (1) Hamilton Creek, PPL, DVC (CGD), about 9th NA record, latest fall. Ring-billed Gull: 13 Aug (3) Seven Points, PPL, DVC (MLM), possible summering birds or very early migrants. Caspian Tern: 14 Aug (4) to 7 Sep (2) GSP (DTC, JPC), only reports.

Cuckoo-Wren: Black-billed Cuckoo: 17 Sep (1) Gallatin (DTC, JPC), only report. Yellow-billed Cuckoo: 1 Nov (1) Clarksville (Joe D. Allen); 5 Nov (1) Nashville (JCM); 18 Nov (1) WDR (KHD, LHD); probable results of warm fall. Common Barn-Owl: 8-9 Oct (3) WLC fall count (John Sellars Chapter, TOS). NORTHERN SAW-WHET OWL: 25 Oct (1, injured in window collision) Bell's Bend, DVC (*fide* DFV, Kevin Schutt); bird taken to Cumberland Bird Rehab. Center where died, specimen in collection of Cumberland Museum; about 4th NA record; 13 Nov (1, casualty) E of Palmyra, MTC (David Snyder), specimen in Vertebrate Coll., Biology Dept., Austin Peay St. Univ. Common Nighthawk: to EOP (1+) Green Hills, DVC (JRS, Peter L. Lefferts), either late migrant or bird attempting to winter. Whip-poor-will: 19 Sep (1 calling) LEF (SJS), last report. Ruby-throated Hummingbird: 20 Oct (1) RDL (JCM), last report, but a hummingbird sp. reported from Manchester on 26 Nov (Opal Correll). RUFOUS HUMMINGBIRD: 6-8 Sep (1 imm male, photographed) MUR (Lou A. Erwin *et al.*), first state record, details should be published. Red-headed Woodpecker: 17 Sep (3 migrating S) LEF (SJS), beginnings of large region-wide influx; 28 Oct (4) Byrdstown, PIC (RCH); nearby states also had large numbers (see *American Birds* 38:213, 1984). Olive-sided Flycatcher: 3 Oct (1) Poole Knobs, PPL, RUC (DTC, JPC), new NA late fall date. Least Flycatcher: 1-2 Oct (1 heard) Shelby Park, DVC (MPS). Yellow-bellied Flycatcher: 23, 24, 26 Sep (3 banded) LSC (GRM), seldom recorded in fall except at banding stations and as tower casualties. Acadian Flycatcher: 1 Oct (1 singing) Ashland City Marsh, CHC (CGD), late; most Oct birds are banding encounters or tower casualties. WESTERN KINGBIRD: 1-5 Oct (1-2) PPL, RUC (RBP, BHS, Ray Fleisher, Thomas McCall), about 5th NA and 7th regional record. SCISSOR-TAILED FLYCATCHER: 11 Aug -7 Sep (2 juv) MUR (*fide* ALH, DTC, JPC), nesting for at least 2nd time since 1978; 18 Oct (1 ad) MUR (RVM), last sighting. Some observers commented that these juv were possibly hybrids, since only 1 ad Scissor-tail was ever observed at a time; hybridization of Scissor-tailed Flycatcher with Western Kingbird has been suspected (*Western Tanager* 46:4, 1979), but no evidence of hybridization in Murfreesboro was proved, though Eastern Kingbirds were observed in proximity to both the ad and juv Scissor-tails. Tree Swallow: 13 Nov (4) PPL (NTOS), new NA late fall date; 18 Nov (3) Todd's Lake, RUC (TJW); 25 Nov (1) CCNWR (CGD); more beneficiaries of warm fall. Northern Rough-winged Swallow: 25 Nov (1) CCNWR (CGD), very late; again, probably due to warm fall. Barn Swallow: 23 Oct (150) Pardue's Pond, DIC (JRS, CGD), very large number for only one day earlier than NA late date; 18 Nov (2) WDR (KHD, LHD); more lingerers. Red-breasted Nuthatch: 23 Sep (1) Love Circle, DVC (JCA); 29 Sep (1) BAH (RWS); few reports; not an invasion year. Bewick's Wren: 24 Sep (4 fledged), 28 Nov (2) MUR (ALH, REH, WJH, TJW); late breeding and probable wintering indicated. Sedge Wren: 16 Oct (1) BAH (RWS); 19 Oct (1) Old Fort Park, RUC (TJW); 23 Oct (1) Pardue's Pond, DIC (CGD, JRS); late, concentrated movement, again perhaps due to warm weather. Marsh Wren: 24 Sep (1) MUR (RVM, ALH); 29 Oct (1) CCNWR (DWB).

Kinglet-Warbler: Golden-crowned Kinglet: 4 Oct (1) Nashville (JCM), first report of season. Swainson's Thrush: 23 Sep ("large numbers" in "peak" migration) BAH (RWS); 23 Oct (1) Nashville (JCM), last report. Gray Catbird: 5 Nov (1) Woods Resv., FKC (Carroll Barr); 14 Nov (1) Love Circle, DVC (*fide* JCA), late. Cedar Waxwing: 2 Nov (500) S WMC (MLM), largest flock reported. Philadelphia Vireo: 11 Sep (1) LEF (BHS), ties NA early fall date. Golden-winged Warbler: 5 Oct (1) RDL (*fide* Ann Houk), last report. Tennessee Warbler: 5 Nov (1) RDL (JCM), last report. Orange-crowned Warbler: 19 Oct (1), 28 Oct (2) BAH (RWS), only reports. Nashville Warbler: 4 Nov (1) Todd's Lake, RUC (TJW), last report, late. Cape May Warbler: 16 Oct (1) BAH (RWS); 19 Oct (2) Nashville (*fide* SJS); only reports of this rare transient. Black-throated Blue Warbler: 8 Oct (1 male) MUR (TJW), only report. Black-throated Green Warbler: 2 Nov (1) RDL (JCM), last report. Blackburnian Warbler: 25 Oct (1) BAH (RWS), last report. Yellow-throated Warbler: 23 Oct (1) Pardue's Pond, DIC (CGD, JRS), last report; getting close to late date. Palm Warbler: 17, 23 Nov (1) Hillsboro, CFC (ER), last report, but winters occasionally. Black-and-white Warbler: 30 Oct (1) RDL (JCA), last report, late. Prothonotary Warbler: 3 Oct (1) RDL (JCM), last report, late. Northern Waterthrush: 23 Oct (1) RDL (*fide* SJS), late. Kentucky Warbler: 29 Oct (1) Nashville (JCM), new NA late fall date. Mourning Warbler: 8 Oct (1) MUR (TJW), only report.

Grosbeak-Grosbeak: Rose-breasted Grosbeak: 12 Nov (1) Love Circle, DVC (JCA), new NA late fall date, but species occasionally winters. Dickcissel: 15 Aug (1) Temple Rd. and Old Natchez Trace (MLM), only report. Lincoln's Sparrow: 30 Sep (1 banded) LSC (GRM), only report. Lapland Longspur: 22 Nov (1) Five Points, LWC (Morris D. Williams), only report. Purple Finch: 11 Oct (1) RDL (JCM), first of season; 15 Oct (1) BAH (RWS). House Finch: 30 Oct (1) MUR (ALH), first of season; 6 Nov (4) Hillsboro, CFC (ER); by EOP (100+) Gallatin (DTC,JPC). Pine Siskin: 26 Oct (1) BAH (RWS), first of season. Evening Grosbeak: 13 Nov (several) BAH (RWS), first of season; 19 Nov (3) LWC (SJS, Rick Knight *et al.*); 22 Nov (7) Smyrna, RUC (*fide* ALH); 25 Nov (25) Dover, SWC (DWB); beginnings of invasion year.

Addenda: Two unpublished reports of early Dunlins from previous fall seasons were received and deserve mention here: 10 Sep 72 (2) GSP (DTC, JPC); 1 Aug 76 (1) GRP (DTC, JPC, William Jones). The latter report established a new NA early fall date.

Locations (and other abbreviations): ad—adult; BAH—Barnes Hollow, Putnam Co.; CCNWR—Cross Creeks Nat. Wildl. Ref., Stewart Co.; CFC—Coffee Co.; CHC—Cheatham Co.; DIC—Dickson Co.; DRU—Duck River Unit, Tennessee Nat. Wildl. Ref., Humphreys Co.; DVC—Davidson Co.; EOP—end of period; GRP—Green Pond, Sumner Co.; GSP—Gallatin Steam Plant, Sumner Co.; imm—immature; juv—juvenile; LHL—Laurel Hill Lake, Lawrence Co.; LEF—Leiper's Fork, Williamson Co.; LSC—Lewis Co.; LWC—Lawrence Co.; LWP—Lewis Pond, Sumner Co.; MEC—Metro Center, Davidson Co.; MOP—Monsanto Ponds, Maury Co.; MUR—Murfreesboro, Rutherford Co.; NA—Nashville Area (includes all of Davidson Co. and parts of 7 other counties); OHL—Old Hickory Lake; PIC—Pickett Co.; PPL—Percy Priest Lake; RDL—Radnor Lake, Davidson Co.; RUC—Rutherford Co.; SUC—Sumner Co.; SWC—Stewart Co.; TOS—Tennessee Ornithological Society; WLC—Wilson Co.; WMA—Wildlife Mgt. Area; WMC—Williamson Co.; WDR—Woods Reservoir, Franklin Co.

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EASTERN RIDGE AND VALLEY REGION — At Knoxville, August and September were much drier than normal. The drought broke there in late September, earlier than in many surrounding areas.

As usual rainfall has minimum effect on the shorebird migration in our region. Rather the most important factor is how TVA manipulates the water levels in their reservoirs. TVA again maintained Chickamauga Lake at a high level and reduced its summer fluctuation from what was considered normal in the past. Consequently few observations originated from this area until the winter drawdown, after the main movement had passed through. Tony Koella reported his usual species array at the Rankin Bottoms section of Douglas Lake. Linda Fowler monitored the Eagle Bend Fish Hatchery and, along with the compilers, the Kingston Steam Plant. On the early date of 26 August a good migratory movement of water birds was noted at the steam plant: Pied-billed Grebe (2), Green-winged Teal (40), Am. Black Duck (2), N. Pintail (2), Blue-winged Teal (40), N. Shoveler (5) and Gadwall (15). An Eared Grebe was also identified and remained at the steam plant until at least 2 October.

Glen Eller reported from the Elizabethton-Johnson City area that gull observations were down, but tern sightings were up. They reported several late swallow sightings along with some good warbler movements. Special birds of interest for their area included Ruddy Ducks, Sandhill Crane (2nd record), Least Tern (2nd record) and a Caspian Tern noted irregularly. Rick Knight continued with his banding operation at Austin Springs. Among the interesting birds he banded was an Orange-crowned Warbler and seven Lincoln's Sparrows.

Chuck Nicholson again operated his banding station at Norris on 34 days from 13 August until 6 November. He banded 949 birds in 792 net hours for 120 birds per 100 net hours. This is about 20% below the average for the previous 3 years, but may be lower because he missed a big chunk of late September, a peak period. He banded a total of 70 species.

On 3 October the compilers spotted a nice late movement of swallows at the Candies Creek area in the Hiwassee River Area. In the group were Tree (15), N. Rough-winged (25), Cliff (1) and Barn (20).

Loon-Wood Stork: Red-throated Loon: 6 Nov (1) CHL (KHD, LHD, RCS). Common Loon: 16 Sep (1) MHL (RDH), early; 25 Oct (3) BOL (RLK); 6-30 Nov (4-36) CHL (KHD, LHD, RCS). Pied-billed Grebe: 26 Aug (2) KSP (KHD, LHD, RCS); max 29 Nov (62) CHL (KHD, LHD). Horned Grebe: 16 Nov (2) BOL (RLK); 8 Nov (2) CHL (KHD, LHD). EARED GREBE: 26 Aug - 2 Oct (1) KSP (KHD, LHD, RCS, JAK *et al.*), record early date for state. Double-crested Cormorant: 4 Sep FLL (PSP); 2 Sep (1) CHL (RCS); 19 Oct (1) FLL (JAK); 11-19 Oct (1-5) AUS (RLK); 5-12 Nov (1-3) HRA (KHD, LHD); 8-30 Nov (3-6 occasional) CHL (KHD, LHD). Great Blue Heron: regular, max 22 Oct (381) DOL (JAK); regular, max 29 Nov (66) HRA (KHD, LHD). Great Egret: 1 Aug (1) NRL (JCH); 2 Aug - 30 Oct (2-12) DOL (JAK); 16-17 Aug (2-3) EBF (LJF); 17 Oct - 2 Nov (1) AUS (RLK *et al.*); 1-18 sporadic HRA (KHD, LHD *et al.*). Snowy Egret: 11 Sep (1) HRA (LHD, RCS). Little Blue Heron: 1 Aug (1) AUS (RLK); 1 Aug - 4 Sep (1-12) HRA (KHD, LHD); 2 Aug - 2 Sep (2-7) EBF (LJF); 3-28 Aug (1-9) DOL (JAK). Cattle Egret: 1 Aug - 18 Sep (1 sporadic) HRA (KHD, LHD); 23 Aug (12) HRA (KHD, LHD). Green-backed Heron: 2 Aug - 26 Sep (1-14) EBF (LJF); regular, max 23 Aug (27) HRA (KHD, LHD); last report 14 Oct (1) AUS (SG, MD). Black-crowned Night-Heron: 13 Oct (1) AUS (RLK). Yellow-crowned Night-Heron: 23 Aug (1) HRA (KHD, LHD); 3 Sep (1) CHA (RCS). WOOD STORK: 1 immature bird present at Knoxville 10 Sep - 7 Oct (Don Powers, A. Boyd Sharp *et al.*, photographed), third local Knox record, details to be published.

Teal-Ruddy Duck: Green-winged Teal: 28 Sep (1) HRA (KHD, LHD); max 29 Nov (450) HRA (KHD, LHD). Am. Black Duck: 26 Aug (2) KSP (KHD, LHD, RCS). N. Pintail: 26 Aug (2) KSP (KHD, LHD, RCS); 10 Oct (1) SAB (KHD, LHD); max 29 Nov (82) HRA (KHD, LHD). Blue-winged Teal: 15 Aug (1) KSP (KHD, LHD); 2 Sep -11 Oct (1-6) EBF (LJF); 6 Sep - 4 Oct (1+) AUS (RLK); max 4 Oct (325) SAB (KHD, LHD); last 10 Oct (100) HRA (KHD, LHD). N. Shoveler: 26 Aug (15) KSP (KHD, LHD, RCS); 23 Sep (5) KSP (KHD, LHD, RCS); 21 Nov (2) HRA (KHD, LHD). Gadwall: 26 Aug (15) KSP (KHD, LHD, RCS); 17 Oct (3) AUS (HHD, MD). Am. Wigeon: 28 Sep (10) HRA (KHD, LHD); 23 Oct (1) AUS (RLK). Redhead: 6-8 Nov (2) CHL (KHD, LHD). Ring-necked Duck: 29 Oct (2) HRA (KHD, LHD); max 8 Nov (400) CHL (KHD, LHD). Greater Scaup: 18 Oct (4) AUS (SG); 15 Nov (20) CHL (KHD, LHD). Lesser Scaup: 8 Nov (75) CHL (KHD, LHD). Surf Scoter: 28 Nov (1) CHL (RCS). Bufflehead: 20-30 Nov (1-8) CHL (KHD, LHD). Hooded Merganser: 29 Oct (2) HRA (KHD, LHD); max 21 Nov (269) HRA (KHD, LHD). Red-breasted Merganser: 20 Nov (18) NIL (KHD, LHD); 29 Nov (20) CHL (KHD, LHD). Ruddy Duck: 30 Oct (4) AUS (SG, HHD, JW); 12 Nov (4) HRA (KHD, LHD); 29 Nov (1) CHL (KHD, LHD).

Osprey-Phalarope: Osprey: 1-23 Aug (1) AUS (RLK *et al.*). Bald Eagle: 10 Aug (1) NRL (JCH); 29 Aug (1) Tellico L. (LJF); 15-16 Oct (1) SAB (KHD, LHD); 19 Oct (1) AUS (RLK); 12 Nov (1) HRA (KHD, LHD). N. Harrier: 2 Sep (1) KSP (RCS). Merlin: 24 Oct (1) CHA (RCS). Peregrine Falcon: 8 Oct (1) CHA (RCS); 12 Oct (1 imm) SAB (KHD, LHD, RCS); 23 Oct - an imm bird was found injured in Chattanooga and turned over to the local Nature Center (KHD). Virginia Rail: 3 Oct (1) AUS (RLK). Sora: 7 Sep - 14 Oct (1-2) AUS (RLK). American Coot: 22 Aug (1) KSP (KHD, LHD); max 21 Nov (2700) CHL (KHD, LHD). Sandhill Crane: 23-30 Nov (1) AUS (RLK), this was only the second local record for the area; 452 birds reported from the Knoxville area as of 9 Dec, most reports 22-26 Nov (compiled by WKJ); 2-30 Nov (178 birds in 4 groups) HLC, BYC (Brainerd Cooper, Jr., KHD, LHD *et al.*). Black-bellied Plover: 26 Aug - 7 Oct (1-3 scattered) KSP (KHD, LHD, RCS, LJF); 5 Nov (1) HRA (KHD, LHD). Lesser Golden-Plover: 15 Aug, 23 Sep (1) KSP (KHD, LHD); 28 Aug (3) RAB (JAK). Semipalmated Plover: 2 Aug - 1 Oct (2-35) RAB (JAK); 5 Aug - 4 Sep (2-10) KSP (KHD, LHD, LJF). Piping Plover: 15 Aug (1) KSP (KHD, ARH). Killdeer: 2 Aug - 26 Nov (20-300) RAB (JAK). Am. Avocet: 6 Sep (1) KSP (James T. Tanner). Greater Yellowlegs: 2 Aug - 22 Oct (1-65) RAB (JAK); 23 Aug - 12 Nov (1 sporadic) HRA (KHD, LHD); 26 Aug - 7 Oct (1-7 occasional) KSP (KHD, LHD, RCS, PCH, LJF). Lesser Yellowlegs: 2 Aug - 30 Oct (1-85) RAB (JAK); 2-30 Aug (1-9) EBF (LJF); 5 Aug - 7 Oct (7-32) KSP (KHD, LHD, LJF); 29 Aug - 1 Nov (2-8) HRA (KHD, LHD); 2 Sep - 125 noted migrating south over SAB (KHD, LHD). Solitary Sandpiper: 2 Aug - 5 Sep (2-6) RAB (JAK); 1 Oct (1) AUS (RLK, CFW); 2-23 Aug (1-3) EBF (LJF). Spotted Sandpiper: 2 Aug - 5 Sep (1-2) RAB (JAK); 3 Nov (1) AUS (SG, MD). Upland Sandpiper: 20 Sep (1) EBF (LJF). HUDSONIAN GODWIT: 12 Nov (1) HRA (KHD, LHD, JAK *et al.*). Ruddy Turnstone: 2 Aug (1) RAB (JAK); 6 Aug (1) KSP (FDH). Red Knot: 29 Aug (5) KSP (KHD); 18 Sep (1) RAB (JAK). Sanderling: 26 Aug - 2 Oct (1-5) KSP (KHD, LHD, RCS, LJF); 13 Sep - 1 Oct (1-11) RAB (JAK); 3 Oct (1) HRA (KHD, LHD). Semipalmated Sandpiper: 2 Aug - 1 Oct (30-300) RAB (JAK); 5 Aug - 24

Sep (1-150) KSP (KHD, LHD, PCH, RCS); 16-22 Aug (2-6) EBF (LJF). Western Sandpiper: 11 Aug (2) AUS (RLK); 20 Aug - 18 Sep (2-22) RAB (JAK); 22-29 Aug (3-15) KSP (KHD, LHD). Least Sandpiper: 2 Aug -26 Nov (6-450) RAB (JAK); 2 Aug - 2 Sep (1-6) EBF (LJF); 5 Aug - 24 Sep (4-40) KSP (LHD, PCH, RCS, KHD); 29 Aug - 30 Nov (4-20) HRA (KHD, LHD). White-rumped Sandpiper: 5-13 Sep (1-4) RAB (JAK); 9 Sep (1) KSP (RCS). Baird's Sandpiper: 31 Jul (4) RAB (JAK); 9 Sep (1) KSP (RCS). Pectoral Sandpiper: 2 Aug - 24 Sep (10-500) RAB (JAK); 2 Aug - 11 Oct (1-26) EBF (LJF); 5 Aug - 3 Oct (1-40) KSP (KHD, LHD, PCH, RCS); 10 Oct -21 Nov (1-8 occasional) HRA (KHD, LHD). Dunlin: 13 Sep - 26 Nov (46-200) RAB (JAK); 4 Oct - 29 Nov (1-50) HRA (KHD, LHD); 9 Oct - 28 Nov (1-42) SAB (KHD, LHD); 17-23 Oct (2-6) AUS (RLK *et al.*). Stilt Sandpiper: 7 Aug - 3 Oct (4 records only) KSP (KHD, LHD, SJS, BHS, ARH); 20 Aug (1), 18 Sep (45) RAB (JAK); 20 Sep (8) EBF (LJF). Buff-breasted Sandpiper: 28 Aug (6) RAB (JAK). Short-billed Dowitcher: 2-20 Sep (2) EBF (LJF); 18 Sep (10) RAB (JAK). Long-billed Dowitcher: 18 Sep (4), 1 Oct (6) RAB (JAK). Common Snipe: first 21 Sep (1) SAB (KHD, LHD); 4 Oct - 30 Nov (1-89) SAB (KHD, LHD). American Woodcock: 21 Oct (1) GNC (BB). RED-NECKED PHALAROPE: 13 Sep (2) RAB (JAK).

Gulls-Swallows: Bonaparte's Gull: 23 Sep - 16 Nov (1-4) AUS (RLK); 29 Oct (1) SAB (KHD, LHD); 29 Nov (10) CHL (KHD, LHD). Ring-billed Gull: 22 Aug (1) CHL (RCS); 29 Oct (5) SAB (KHD, LHD). Herring Gull: 1 Oct (1) BOL (RLK). Caspian Tern: 29 Aug (4) CHL (RCS); 4 Sep (2) KSP (KHD, LHD); 6 Sep (2) DOL (JAK); 7 Sep - 1 Oct (1 irregular) AUS (RLK); 1 Oct (6) DOL (JAK). Common Tern: 15 Aug (1) KSP (KHD, LHD); 23 Aug (4) HRA (KHD, LHD). Forster's Tern: 18 Sep (1) DOL (JAK). Least Tern: 13 Sep (1) DOL (JAK); 17 Oct (1) AUS (RLK), this is only their second local record. Black Tern: 4 Sep (4) KSP (KHD, LHD); 18 Sep (9) DOL (JAK); 23 Sep (1) KSP (KHD, LHD). Common Nighthawk: 325 were noted migrating over Johnson City 3 Oct with the last observation there 19 Oct (RLK). Chimney Swift: 23 Oct (1) CHA (ABS). Ruby-throated Hummingbird: late record for area, 1 on 30 Oct at Knoxville, and 1 on 30 Oct near Norris Lake (Mrs. Otey Cottrell, *fide* J.B. Owen). Red-headed Woodpecker: pair regular thru 15 Sep at Jonesborough (RLK); at least 10 birds reported from KNX area (CPN *et al.*). Eastern Wood-Pewee: 8 Nov (1) CHL (FDH, KHD, LHD), very late. Tree Swallow: 3 Oct (15) HRA (KHD, LHD); 6 Nov (12) GNC (JAK); 11 Nov (6) NIL (RCS); 13 Nov (3) SAB (LHD). Northern Rough-winged Swallow: 3 Oct (25) HRA (KHD, LHD). Cliff Swallow: 3 Oct (1) HRA (KHD, LHD). Barn Swallow: 3 Oct (20) HRA (KHD, LHD).

Nuthatch-Warblers: Red-breasted Nuthatch: first report 5 Sep (1) NOR (CPN), then good number present to the end of the period; 24 Sep - 16 Oct (1-2 regular) Signal Mountain (KHD); 29 Nov (2) CHL (KHD, LHD). House Wren: 23 Sep (1) HLC (RCS). Sedge Wren: 1-30 Aug (1-3 singing) SAB (KHD, LHD); 19-31 Aug (1 singing) KNX (PDH *et al.*); 11 & 26 Oct (1) AUS (RLK). Marsh Wren: 1 Oct (2) KSP (RCS); 1 Oct (2) & 13 Oct (1) AUS (RLK, CFW); 8 & 22 Oct (1) KNX (PDH *et al.*). Blue-gray Gnatcatcher: 2 Oct (1) NOR (MLD, Nancy Sheppard); 8 Nov (1) CHL (KHD). Gray-cheeked Thrush: local late report 16 Oct (1) NOR (CPN). Hermit Thrush: 10 Oct (1) NOR (CPN), this bird was banded at the same location in 1982. Water Pipit: 17 Oct - 9 Nov (10-60) AUS (RLK *et al.*); 21 Nov (285) HRA (KHD, LHD). Loggerhead Shrike: 12 Aug (5 together, a family group?) SAB (KHD, LHD). Solitary Vireo: 2 Nov (1) CHA (JP). Philadelphia Vireo: 24 Sep (1) CHA (RCS); 10 Oct (1) KNX (JAK). Red-eyed Vireo: record high of 102 banded through 22 Sep at NOR (CPN). Orange-crowned

Warbler: 23 Sep (2) CHA (RCS); 26 Oct (1 banded) AUS (RLK); 30 Oct (3 banded) NOR (CPN). Nashville Warbler: 22 Oct (1) KNX (PDH), late. Cape May Warbler: 24 Oct (1 banded) AUS (RLK). Yellow-rumped Warbler: late arriving KNX, not present in numbers until late Oct (CPN *et al.*). Blackburnian Warbler: 14 Aug (1) KNX (JCH), early there. Yellow-throated Warbler: 5 Oct (1) KNX (JCH), late there. Palm Warbler: 23 Nov (1) AUS (RLK). Prothonotary Warbler: 18 Oct (1) EJC (MD), very late. Northern Waterthrush: 3 Oct (1 banded) AUS (RLK). Mourning Warbler: 23-24 Sep (1) CHA (RCS, PDR). Common Yellowthroat: 22 Oct (2) KNX (PDH, ARH *et al.*), late there. Wilson's Warbler: 13 Sep (1) CHA (RCS); 15 Sep - 6 Oct (3 banded) AUS (RLK *et al.*). Yellow-breasted Chat: 1 banded on 30 Oct, then repeated on 6 Nov at NOR (CPN), this is an all time late record there.

Grosbeak-Grosbeak: Rose-breasted Grosbeak: numbers lower than average KNX; first one on 14 Sep NOR (CPN). Vesper Sparrow: 11 Oct - 18 Nov (1-15 irregular) AUS (RLK); 1-12 Nov (1-3) HRA (KHD, LHD). Grasshopper Sparrow: 1 Oct (1) KNX (JCH), fall records of this species are very infrequent. Fox Sparrow: 1 Nov (1 banded) AUS (RLK). Lincoln's Sparrow: 28 Sep-17 Oct (7 banded) AUS (RLK). Bobolink: 8 Sep - 18 Oct (2-10) AUS (RLK); 9 Sep (2) KSP (RCS); 13 Sep (1) SAB (KHD); 17 Sep (3) SAB (KHD). Orchard Oriole: last report of 5 at SAB on 8 Aug (KHD, LHD). Purple Finch: 18 Oct (3) EJC (SG); arrived in late Oct KNX, then fair numbers there by the end of the period (CPN *et al.*). House Finch: the only reports received noted 12 Sep (10) at CHA (RCS) and migrants returning to feeders at EJC 9 Oct (LHTOS). Pine Siskin: 28 Oct (2) AUS (RLK); 19 Oct (35) Thorn Hill (PDH); widespread KNX with several flocks of 50 or more by end of the period; 21 Nov (6) HLC (KHD, LHD). Evening Grosbeak: first report 6 Nov (5) KNX (PDH), then reports of small numbers there through the end of period; 9 Nov (8) AUS (RLK); 21 Nov (15) HLC (KHD, LHD).

Locations: AUS—Austin Springs; BOL—Boone Lake; BYC—Bradley Co.; CHA—Chattanooga; CHL—Chickamauga Lake; DOL—Douglas Lake; EBF—Eagle Bend Fish Hatchery; EJC—Elizabethton-Johnson City; FLL—Fort Loudoun Lake; GNC—Greene Co.; HLC—Hamilton Co.; HRA—Hiwassee River Area; KNX—Knoxville; KSP—Kingston Steam Plant; MHL—Melton Hill Lake; NIL—Nickajack Lake; NRL—Norris Lake; NOR—Norris; RAB—Rankin Bottoms; SAB—Savannah Bay.

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EASTERN MOUNTAIN REGION — Temperatures were above normal during August and September, and about average during the rest of the period. Rainfall was above average in August, well below average in September and October, and near normal in November.

The highlight of the period in the northern part of the region was the shorebird migration in the Roan Creek area of Watauga Lake. Watauga Lake was drained by the Tennessee Valley Authority for maintenance work on the dam, and did not fill until well into the winter. This drawdown resulted in plentiful shorebird habitat, and there were several reports of unusual species. The hawk and warbler migrations were about normal, while sparrows were in lower than average numbers. The cone crop was very poor, possibly indicative of a poor winter for eruptive northern finches. House Finches, meanwhile, continue to expand their range, and are dominating many bird feeders.

Loon-Osprey: Common Loon, Horned Grebe: no reports. Cattle Egret: 1, 2 Aug (1) TOW (GW, HW). Green-backed Heron: last report, 14 Oct (1) RNC (RLK). Snow Goose (Blue morph): 16 Nov (1) ELI (GDE). Amer. Black Duck: 5 Nov (3) WIL (HF), first report. Blue-winged Teal: present 6 Sep - 4 Oct in ELI area (*fide* GDE). Gadwall: 1 Oct (2) RNC (RLK). Amer. Wigeon: 30 Sep (1) WIL (HF), first report. Canvasback: 18 Nov - EOP (1) WTR (RH). Redhead: 22, 23 Nov (1) RIL (GDE, RLK). Ring-necked Duck: 10 Nov (1) WTR (RH), first report, late. Lesser Scaup: 22 Nov (1) RIL (RLK), only report. Bufflehead: 9 Oct (2) WIL (RH), first report. Hooded Merganser: 22 Nov (4) RIL (RLK), first report. Osprey: 23 Jul (1) WTL (GDE). Sharp-shinned Hawk: 1 Aug (1) Great Smoky Mtns. Nat. Park (Steven Rammels); 23 Aug (1) RNM (EHS); 29 Aug (1) ELI (HF); 19 Sep (1) ERW (GWS); 3 Nov (1) ELI (HF). Cooper's Hawk: 2 Aug (1) TOW (GW, HW); 5 Sep (1) SMV (GOW); 10 Sep (1) RNM (GDE); 1 Oct (1) RIL (GDE, HF). Red-shouldered Hawk: 2 Aug (1) TOW (GW, HW). Broad-winged Hawk: 22 Sep (44 migrating) GRE (Ben Britton), also last date reported.

Grouse-Owl: Ruffed Grouse: 19 Nov (4) GRE (RN). The following shorebird records are all from the Roan Creek section of Watauga Lake, observed by RLK, unless otherwise noted. Semipalmated Plover: 19 Aug - 14 Sep (1-5). WILLET: 8-14 Sep (1). Spotted Sandpiper: 1 Aug - 3 Nov (1-6), late. RUDDY TURNSTONE: 8-14 Sept (1), 2nd ELI area record. Sanderling: 4-21 Sep (1-3) (RLK *et al.*). Western Sandpiper: 11 Aug - 21 Sep (2-12) RNC, St. John's Pond (RLK *et al.*). BAIRD'S SANDPIPER: 29 Aug - 21 Sep (1-4) largest number ever reported from region. Pectoral Sandpiper: 2 Aug - 1 Oct (2-8). STILT SANDPIPER: 8 Sep (2). WILSON'S PHALAROPE: 8 Sep (1). Ring-billed Gull: 1 Oct (3) WTL (RDL, GOW), only report. Black-billed Cuckoo: 9 Aug (1), 14 Oct (1) Iron Mtn. Gap (MD, HHD, SG). Great Horned Owl: 2 Aug (1) TOW (GW, HW); 29 Sep (1 injured, turned over to TWRA) ELI (*fide* GDE). Barred Owl: 1 Aug (1) TOW (GW, HW); 19-26 Nov (1) GRE (RN).

Swift-Thrush: Chimney Swift: 14 Oct (3) ELI (HF), last report. Red-headed Woodpecker: 19 Oct (3 migrating) SHL (*fide* GDE). Yellow-bellied Sapsucker: 1 Oct (1) HLM (RDL, GOW). WESTERN KINGBIRD: 20 Sep (1) ELI (Howard Langridge), first ELI area sighting since 1947. Purple Martin: 19 Aug (2) ELI (*fide* GDE), last report. Tree Swallow: 23 Oct (12) SMV (GDE), last report. Common Raven: several low elevation sightings in ELI area after 1 Oct (*fide* GDE). Red-breasted Nuthatch: 1 Oct (1) RNM (HF); very scarce at high elevations after 1 Oct. Veery: 27 Aug (1) RNM (RLK), last report. Swainson's Thrush: 16 Oct (1) ERW (GWS), last report. Hermit Thrush: 13 Oct (1) ELI (GOW), early. Wood Thrush: 14 Oct (1) ERW (GWS), last report.

Vireo-Grosbeak: White-eyed Vireo: 13 Oct (1) ELI (GDE), last report. Solitary Vireo: 3 Nov (1) ERW (GWS), last report. Blue-winged Warbler: 20 Sep (1) ELI (LH). Tennessee Warbler: 20 Oct (1) ELI (GDE), last report. Nashville Warbler: last report 17 Oct (1) ERW (GWS), good fall flight in area. Yellow-rumped (Myrtle) Warbler: 1 Oct (3) HLM (GOW, RDL), first report. Palm Warbler: 8 Nov (1) ELI (HF), last report. Bay-breasted Warbler: 23 Oct (1) ELI (GDE), last report. Connecticut Warbler: 20 Sep (1) ERW (GWS). Summer Tanager: 10 Oct (1) ELI (LH), last report. Grasshopper Sparrow: 25 Aug (1) SMV (RLK). Fox Sparrow: no reports from ELI area. White-throated Sparrow: 1 Oct (1) ELI (GDE, HF), first report. White-crowned Sparrow: 21 Oct (1) ELI (RLK), first report. House Finch: first migrant flocks in ELI area noted 8 Oct (*fide* GDE). Pine Siskin: 22 Nov (4) RNM (RLK), first report. Evening Grosbeak: 13 Nov (6) ELI (*fide* LH), first report.

Locations: ELI—Elizabethton area; ERW—Erwin; GRE—Greeneville; HLM—Holston Mtn.; RNC—Roan Creek area of Watauga Lake; RIL—Ripshin Lake; RNM—Roan Mtn.; SMV—Siam Valley; TOW—Townsend; WTL—Watauga Lake; WTR—Watauga River; WIL—Wilbur Lake.

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DB—Drue Bayer
DWB—Donald W. Blunk
BB—Ben Britton
CHB—Carolyn H. Bullock
EC—Elizabeth Carter
RTC—Robert C. Casey
BBC—Ben B. Coffey, Jr.
LCC—Lula C. Coffey
CC—Chuck Cook
DTC—Dot T. Crawford
JPC—J. Paul Crawford
DAD—Dollyann Daily
MLD—Marcia L. Davis
CD—Chris Debold
RD—Rowan Debold
MD—Martha Dillenbeck
HBD—Helen B. Dinkelspiel
HHD—Helenhill Dove
CGD—C. Gerald Drewry
KHD—Kenneth H. Dubke
LHD—Lillian H. Dubke
HF—Harry Farthing
LJF—Linda J. Fowler
SG—Sally Goodin
JBG—Joe B. Guinn
PCH—Paul C. Harris
PDH—Paul D. Hartigan
RCH—Robbie C. Hassler
AHH—Annie H. Heilman
NRH—N.R. Heilman
RH—Richard Hegler
LH—Lois Herndon
ALH—Anne L. Hettish
FDH—Frank D. Hixon
ARH—Audrey R. Hoff
JCH—Joseph C. Howell
WJH—Wilma J. Hunter
DRJ—Daniel R. Jacobson
WAJ—Walk A. Jones
RLK—Richard L. Knight
JAK—J. Anthony Koella
LFK—Lee F. Kramer
JLL—Jo L. Levy
SSL—Selma S. Lewis
ARL—Anne R. Lochridge
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JCM—Jane C. Maynard
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RJM—Rocky J. Milburn
DM—Dwight Miller
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CPN—Charles P. Nicholson
PSP—Paul S. Pardue
HEP—Henry E. Parmer
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PDR—Peter D. Robinson
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SJS—Stephen J. Stedman
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GLS—Glen W. Swofford
DV—Dave Vance
DFV—David F. Vogt
MGW—Martha G. Waldron
GOW—Gary O. Wallace
CFW—C. Frank Ward
JW—Jane Whitehead
WLW—Wendell L. Whittemore
JRW—Jeff R. Wilson
TJW—Terry J. Witt
GW—George Wood
HW—Hedy Wood
LHTOS—Lee R. Herndon Chapter, TOS
MTOS—Memphis Chapter, TOS
NOTS—Nashville Chapter, TOS

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LATE SPRING AND SUMMER BIRDS OF McNAIRY COUNTY, TENNESSEE

Charles P. Nicholson

The 1981 Tennessee Ornithological Society Breeding Bird Foray was held 23-26 May in McNairy County. McNairy County (Figure 1) is in the southeast corner of West Tennessee, bounded on the east by Hardin County, on the north by Chester County, on the west by Hardeman County, and on the south by Alcorn County, Mississippi. The county is within the Mississippi Coastal Plain physiographic region, and elevation ranges from 110 to 198 m. The eastern third of the county is in the Tennessee River drainage, and most of the rest of the county is drained by the Hatchie River. A small part in the north drains into the South Fork of the Forked Deer River.

About 54 percent of the county is forested, and the dominant cover type is mixed shortleaf pine-oak-hickory. The forests have been cut over repeatedly, and most are presently of poor quality. An area of virgin shortleaf pine, known as the Ben Carr pines, formerly occurred near Rt. 57 about 2.4 to 4 km E of Pocahontas.This stand, where Red-cockaded Woodpeckers were reported for several years, was cut in the late 1960's or early 1970's. Some bottomland swamps remain along the Tuscumbia River, Cypress Creek, Little Hatchie Creek, and tributaries. Others have been cleared after stream channelization began in the early 1900's. Good examples of bottomland hardwood forest, cypress swamp, and upland forest are protected within Big Hill Pond State Park, located in the southwest corner of the county. This area, of 1707 ha, includes the Big Hill Pond, a cypress pond possibly impounded by a railroad constructed in the 1850's, as well as a recently constructed fishing lake.

The first ornithologists to visit the county were apparently Memphis TOS members, who began incidental observations in the early 1930's. In 1939, TOS members John B. Calhoun, Alfred Clebsch, Jr., and John A. Pond accompanied a Game and Fish Division wildlife survey of the upper Hatchie River. They worked out of a camp on Johnny Young Hill, 2.4 km E of Pocahontas in the southwest corner of McNairy County, from 17 June to 20 August. Their bird observations are summarized in "Notes on the Summer Birds of Hardeman and McNairy Counties" (Calhoun 1941). Among their noteworthy observations are reports of Red-cockaded Woodpeckers. Albert F. Ganier and Alfred Clebsch worked the area on 16-17 June 1942 (Ganier and Clebsch 1942). Since then, some observations from McNairy County have appeared in *The Migrant*, but there have been no recent published bird lists.

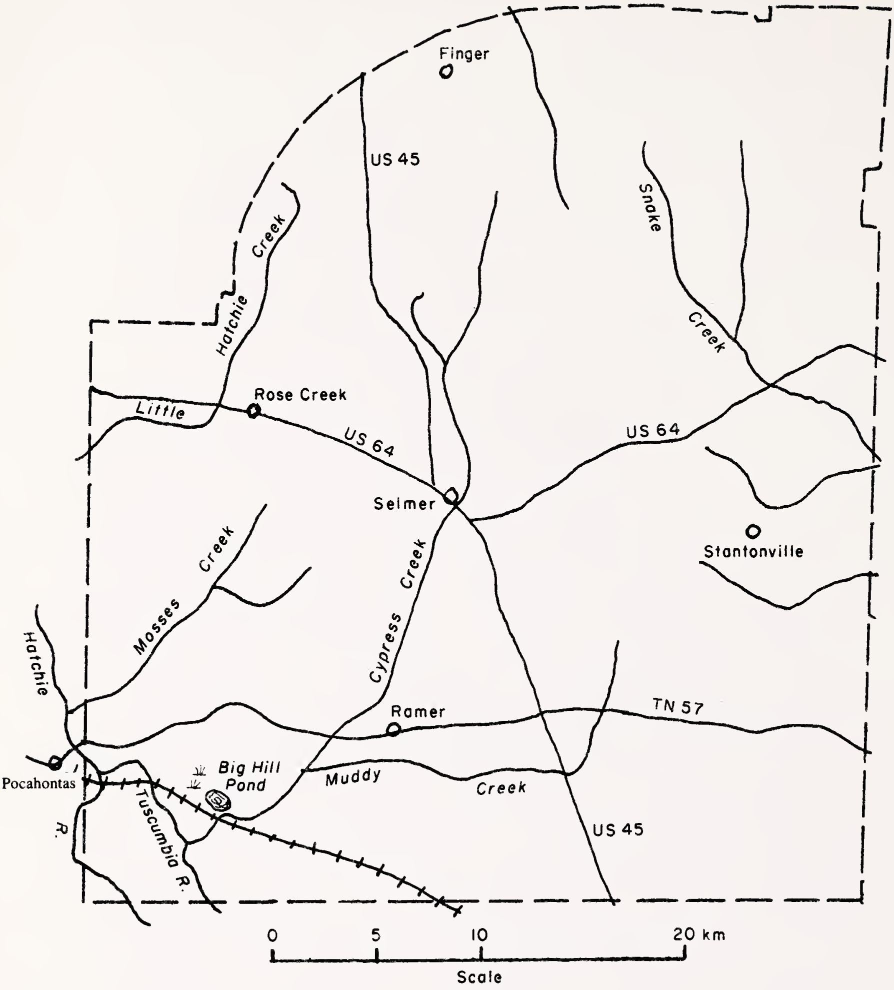
Finger
US 45
Snake Creek
Hatchie Creek
Rose Creek
Little
US 64
US 64
Selmer
Stantonville
Mosses Creek
Cypress Creek
Hatchie R.
Ramer
TN 57
Pocahontas
Big Hill Pond
Muddy Creek
Tuscumbia R.
US 45
0
5
10
20 km
Scale

FIGURE 1. Map of McNairy County, Tennessee.

The 1981 NcNairy County foray was held 23-26 May, with most fieldwork on 24 and 25 May. Twenty-two birders participated. Fieldwork consisted of parties working assigned portions of the county, as well as conducting three 50-stop Breeding Bird Survey routes. Emphasis was placed on the Big Hill Pond (BHP) area. The following annotated list includes results of the 1981 foray, followed by other observations, particularly those of Calhoun (1941) and Ganier and Clebsch (1942). For species observed on the foray, these results are given first. The first number is the total number of individuals reported, adjusted to avoid duplication, and not including BBS route results. The second number, presented as a fraction, is the total number of individuals observed on the BBS routes, over the number of stops, out of 150, at which the species was observed.

ANHINGA — nested at BHP in 1980 (Waldron 1980).

GREAT BLUE HERON — 1, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW; 1 to 3 birds reported regularly, along wooded sloughs or flying overhead, by Calhoun (1941).

GREAT EGRET — 1, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW; wandering birds reported by Calhoun (1941) from 11 July, when male collected along Tuscumbia River, to end of study.

SNOWY EGRET — 1, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW.

CATTLE EGRET — 5, on 23 May near Stantonville by Lee Shafer, Robert Casey.

GREEN-BACKED HERON — 26, 1/1; observed regularly by Calhoun (1941); 2 at BHP on 3 Aug. 1976 by MDW.

YELLOW-CROWNED NIGHT-HERON — 9, at Stanfield Swamp and along Cypress Creek south of BHP; from flight lines of birds, there is probably a rookery on the south side of Cypress Creek about 1.5 km upstream of junction with Tuscumbia River; described as fairly common by Calhoun (1941), who found an immature bird on 5 July 1939 in Tuscumbia bottoms.

CANADA GOOSE — 1, on 23 May near Stantonville by LS, RC.

WOOD DUCK — 12; observed in sloughs in deeply wooded bottoms and on Tuscumbia River by Calhoun (1941).

MALLARD — 4, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW.

NORTHERN PINTAIL — 1, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW.

BLUE-WINGED TEAL — 3, on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW; 2 at BHP Lake on 11 May 1980 by CPN.

BLACK VULTURE — 4, 3/2; reported by Calhoun (1941) to be much rarer than Turkey Vulture.

TURKEY VULTURE — 31, 3/2; seen regularly by Calhoun (1941); 3 at BHP on 11 May 1980 by CPN; 2 on 3 Aug. 1976 at BHP by MDW.

SHARP-SHINNED HAWK — described by Calhoun (1941) as of rare occurrence, and observed only in short-leaf pine woods in SW McNairy County.

COOPER'S HAWK — 1 on 23 May N of Ramer by MH, RL, ER; 2 on 24 May, 1 E of Bethel Springs by MH, RL, ER, and 1 W of Milledgeville by AS, NS; 2 observed on 7 August 1939 in pine woods adjoining cultivated fields in SW McNairy County by Calhoun (1941).

RED-SHOULDERED HAWK — 4 on 23 May and 2 on 24 May in Cypress Creek-Tuscumbia River-BHP area; 2 on 13 July 1976 at BHP by MDW; described by Calhoun (1941) as the only common hawk in the area, and frequently encountered in the bottoms.

BROAD-WINGED HAWK — 16; not reported by Calhoun (1941).

RED-TAILED HAWK — 19; only 2 observed in McNairy County by Calhoun's party, 1 on 10 July, 12 km E of Pocahontas, the other collected on 13 July 1939 (Calhoun 1941); 1 on 3 Aug. 1976 at BHP by MDW.

AMERICAN KESTREL — 1 on 23 May near Stantonville by LS, RC and 1 on 25 May N of Adamsville by CPN; described by Calhoun (1941) as rather uncommon in SW McNairy County.

WILD TURKEY — 2 observed by Wandell on 10 July 1939 near railroad crossing of Tuscumbia River (Calhoun 1941); 25 game farm birds stocked near Rose Creek in 1941 (Shultz 1955). None were observed on the 1981 foray; however, state park personnel report they occur in the BHP area.

NORTHERN BOBWHITE — 338, 109/86; reported as common by Calhoun (1941); 1 on 3 Aug. 1976 at BHP by MDW.

KILLDEER — 14, 8/8; described as fairly common by Calhoun (1941).

SOLITARY SANDPIPER — reported by Calhoun (1941) to be fairly common migrant, first seen 13 July 1939; he does not specify whether any of its observations were from McNairy County.

BLACK TERN — 1 on 23 May at Stanfield Swamp by CPN, GRM, RM, MGW, JRW.

ROCK DOVE — 42, 3/1.

MOURNING DOVE — 437, 109/61; reported by Calhoun (1941) to be common; 1 at BHP on 11 May 1980 by CPN.

YELLOW-BILLED CUCKOO — 179, 31/28; reported by Calhoun (1941) to be quite common, with no particular habitat preference; 1 at BHP on 11 May 1980 by CPN; 5 on 3 Aug. 1976 at BHP by MDW.

EASTERN SCREECH-OWL — described by Calhoun (1941) as surprisingly uncommon, with 2 heard regularly 2.4 km E of Pocahontas; 1 on 3 Aug. 1976 at BHP by MDW.

GREAT HORNED OWL — pair reported by Calhoun (1941) in hills east of Pocahontas along Rt. 57, presumably in vicinity of their campsite in McNairy County.

BARRED OWL — 11, common in BHP area; described by Calhoun (1941) as very abundant; 1 on 3 Aug. 1976 at BHP by MDW.

COMMON NIGHTHAWK — 8; described by Calhoun (1941) as common 2.4 km E of Pocahontas; 1 on 3 Aug. 1976 at BHP by MDW.

CHUCK-WILL'S-WIDOW — 36, 9/8; described by Calhoun (1941) as fairly well distributed over area covered in McNairy County, with preference for hilly country; other records by BBC, LCC — 19 on 28 June 1950, 11 on 17 June 1951, 4 on 17 June 1956, 20 on 27 June 1976, 20 on 22 June 1979.

WHIP-POOR-WILL — 43, 1/1, common in BHP area; one bird reported by Calhoun (1941) on 19, 20, and 24 June 1939, 2.4 km E of Pocahontas; other records by BBC, LCC — 4 on 17 June 1951, 3 on 17 June 1956, 2 on 27 May 1976, 13 on 22 June 1979. This species has apparently increased in numbers since Calhoun conducted his study.

CHIMNEY SWIFT — 159, 53/28; nest in hollow tree stub on bank of Tuscumbia River 4.7 km downstream from jct. of Tuscumbia River and Cypress Creek, adults flying in and out of cavity on 23 and 24 May, discovered by JRW; reported by Calhoun (1941) to be uncommon until 6 August 1939, when flocking started; 1 at BHP on 11 May 1980 by CPN; 1 on 3 Aug. 1976 at BHP by MDW.

RUBY-THROATED HUMMINGBIRD — 18; several reported by Calhoun (1941).

BELTED KINGFISHER — 13, 5/3; reported by Calhoun (1941) to occur sparingly throughout McNairy County, with few suitable nesting sites; 1 on 3 Aug. 1976 at BHP by MDW.

RED-HEADED WOODPECKER — 47, common in BHP area, adults feeding young in nest at BHP on 23 May; adults feeding young in nest along Tuscumbia River near Tan Yard Bend on 24 May, by JRW, MGW; reported as uncommon by Calhoun (1941), and only found in areas of standing dead trees; 2 on 3 Aug. 1976 at BHP by MDW.

RED-BELLIED WOODPECKER — 127, 23/22; described by Calhoun (1941) as the most common woodpecker; 2 at BHP on 11 May 1980 by CPN; 2 on 3 Aug. 1976 at BHP by MGW.

DOWNY WOODPECKER — 67, 11/9; 2 nests with calling young on 23 May along Tuscumbia River by CPN, GRM, RM; described by Calhoun (1941) as common in all regions; 1 at BHP on 11 May 1980 by CPN.

HAIRY WOODPECKER — 7; a few reported by Calhoun (1941).

RED-COCKADED WOODPECKER — reported by Calhoun (1941:302-303; Coffey, pers. comm.) from strip of virgin shortleaf pine, 2.4 km long by 0.4 km wide, located 8 km NE of Pocahontas, on a high ridge near Eureka Church. Two adults and 2 immature birds, and 2 cavities, observed by Calhoun on 31 July 1939, and 2 again seen here on 10 August. Calhoun found this site after searching "several thousand acres" of pine. Ganier and Clebsch (1942) searched this area on 17 June 1942, without finding Red-cockaded Woodpeckers. On 6 July 1947, 4 birds were discovered in an area of virgin shortleaf pines 2.4 to 4 km E of Pocahontas, on the south side of TN 57 (Coffey, pers. comm.). This area was known as the Ben Carr pines. On 34 visits to this area by the Coffeys and other Memphis birders, during all seasons between 1947 and 1967, Red-cockaded Woodpeckers were observed on 11 occasions. The last observaton was of 1 bird on 14 May 1967 by the Coffeys. The Ben Carr pines were cut sometime after that. No Red-cockaded Woodpeckers were observed on the 1981 foray.

NORTHERN FLICKER — 45, 8/7; described by Calhoun (1941) as uncommon; 1 on 3 Aug. 1976 at BHP by MDW.

PILEATED WOODPECKER — 28; described by Calhoun (1941) as common in bottoms of the Hatchie River and its tributaries, and also found in upland pine woods in McNairy County; 1 observed by Ganier and Clebsch (1942) at Ben Carr pines.

EASTERN WOOD-PEWEE — 115, 27/26; described by Calhoun (1941:303) as the most characteristic bird of the pine woods, with a maximum daily count of 32, and also found in other habitats; 1 on 3 Aug. 1976 at BHP by MDW.

ACADIAN FLYCATCHER — 121, empty nest on 23 May along Tuscumbia River by CPN, GRM, RM; adults building nest in buttonbush, on 24 May, at south end of BHP; described by Calhoun (1941) as abundant in bottoms, especially along small streams; reported by Ganier and Clebsch (1942) as common west of Ramer; 6 at BHP on 11 May 1980 by CPN; 3 on 3 Aug. 1976 at BHP by MDW.

EASTERN PHOEBE — 12, 2/2; not reported by Calhoun (1941) from McNairy County, and no nests seen under bridges.

GREAT CRESTED FLYCATCHER — 172, 40/33; several reported by Calhoun (1941); 6 at BHP on 11 May 1980 by CPN; 1 on 3 Aug. 1976 at BHP by MDW.

EASTERN KINGBIRD — 125, 39/28; described by Calhoun (1941:303) as "uncommon but well distributed over Hardeman County", but no mention of it in McNairy County; 3 on 3 Aug. 1976 at BHP by MDW.

HORNED LARK — 4, 3/3, most in eastern part of county.

PURPLE MARTIN — 391, 11/4; single bird reported by Calhoun (1941) on 24 June 1939, 2.4 km E of Pocahontas, and large numbers later seen roosting with House Sparrows in shade trees in Selmer.

TREE SWALLOW — 1, at Stanfield Swamp on 23 May by CPN, GRM, RM, MGW, JRW, no evidence of nesting, although several suitable dead trees in area.

NORTHERN ROUGH-WINGED SWALLOW — 40, 2/2; 2 nests with adults flying in and out of cavities on 24 May in road cut embankment near Cypress; 3 reported by Calhoun (1941) from BHP on 20 July 1939.

CLIFF SWALLOW — 15, and 30 nests under bridge on county rt. 8122 at Snake Creek, 4.2 km S of Adamsville by LS, DM.

BARN SWALLOW — 218, 37/18.

BLUE JAY — 381, 93/62; reported by Ganier and Clebsch (1942) as common west of Ramer; reported by Calhoun (1941); 4 at BHP on 11 May 1980 by CPN; 5 on 3 Aug. 1976 at BHP by MDW.

AMERICAN CROW — 110, 41/32; reported by Calhoun (1941); 3 on 3 Aug. 1976 at BHP by MDW.

CAROLINA CHICKADEE — 146, 20/15; reported by Calhoun (1941); 1 at BHP on 11 May 1980 by CPN.

TUFTED TITMOUSE — 319, 60/49; reported by Calhoun (1941) as the second most abundant bird in the area; 7 at BHP on 11 May 1980 by CPN; 1 on 3 Aug. 1976 at BHP by MDW.

WHITE-BREASTED NUTHATCH — 9, most in BHP area; reported by Calhoun (1941) to be in all heavily wooded areas; reported by Ganier and Clebsch (1942) as common in pines west of Ramer.

CAROLINA WREN — 130, 14/13; described by Calhoun (1941:304) as "truly abundant, ...found in practically every type of habitat encountered"; 1 at BHP on 11 May 1980 by CPN; 3 on 3 Aug. 1976 at BHP by MDW.

BEWICK'S WREN — 1 on 22 June 1979, 5.6 km SE of Finger, by BBC, LCC (*Migrant* 51:12-14); a few recorded by Calhoun (1941), all near farmhouses.

BLUE-GRAY GNATCATCHER — 130, 8/6; 6 at BHP on 11 May 1980 by CPN; described by Calhoun (1941) as fairly common in both hills and bottoms; 1 on 3 Aug. 1976 at BHP by MDW.

EASTERN BLUEBIRD — 86, 8/8; described by Calhoun (1941) as common about houses and other cleared areas; 3 on 3 Aug. 1976 at BHP by MDW.

VEERY — 2 late migrants on 23 May in Dismal Swamp area by KHD, LHD; 3 at BHP on 11 May 1980 by CPN.

GRAY-CHEEKED THRUSH — 1 late migrant on 23 May in Dismal Swamp area by KHD, LHD.

SWAINSON'S THRUSH — 3, 1/1, all on 23 May, late migrants; 9 at BHP on 11 May 1980 by CPN.

WOOD THRUSH — 166, 28/26; 11 birds and fresh nest, contents unknown, at BHP on 11 May 1980 by CPN; described by Calhoun (1941) as fairly common, especially in bottoms, and nest with 2 eggs observed on 17 June 1939, 2.4 km E of Pocahontas; 1 on 3 Aug. 1976 at BHP by MDW.

AMERICAN ROBIN — 96, 29/23; reported by Calhoun (1941), who found no indication they were still nesting in late June.

GRAY CATBIRD — 11, 4/4; described by Calhoun (1941) as surprisingly uncommon.

NORTHERN MOCKINGBIRD — 226, 32/28; described by Calhoun (1941) as surprisingly uncommon, and only found in cultivated areas or around habitations; 1 on 3 Aug. 1976 at BHP by MDW.

BROWN THRASHER — 128, 30/22; 3 at BHP on 11 May 1980 by CPN; a few reported by Calhoun (1941).

CEDAR WAXWING — 23, probably migrants, on 23 May in Tuscumbia River bottoms; 7 at BHP on 11 May 1980 by CPN.

LOGGERHEAD SHRIKE — 36; a few reported by Calhoun (1941).

EUROPEAN STARLING — 186, 39/16; a few reported by Calhoun (1941).

WHITE-EYED VIREO — 264, 30/27; reported by Calhoun (1941) to be the third most abundant bird, and observed singing throughout the summer; 2 on 3 Aug. 1976 at BHP by MDW.

YELLOW-THROATED VIREO — 65, 3/3; 1 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941) to be the least common vireo, and usually found in upland areas; reported by Ganier and Clebsch (1942) as common in pines west of Ramer.

WARBLING VIREO — 2 on 24 May in Selmer by JMC, BRC.

RED-EYED VIREO — 175, 8/8; 12 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941) to be common in bottoms and in the uplands; 1 on 3 Aug. 1976 at BHP by MDW.

BLUE-WINGED WARBLER — 7, in upland area on W side of county; reported by Calhoun (1941), not specified whether actually seen in McNairy County.

TENNESSEE WARBLER — 20 at BHP on 11 May 1980 by CPN.

NORTHERN PARULA — 42, 1/1, common in BHP area; 1 at BHP on 11 May 1980 by CPN; described by Calhoun (1941) as a rare warbler, mainly found in the bottoms.

YELLOW WARBLER — 1, possibly a territorial bird, on 24 May on east side of BHP near Boles Branch, by JMC, BRC.

BLACKBURNIAN WARBLER — 2 late migrants on 24 May in NW corner of county by BBC, LCC.

YELLOW-THROATED WARBLER — 37, common in BHP area; reported by Calhoun (1941) along Hatchie and Tuscumbia Rivers, mostly in cypress woods.

PINE WARBLER — 49, 6/6; 1 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941) from pines in SW McNairy County; reported by Ganier and

Clebsch (1942:33) to be "more common than anticipated" with many young birds observed in area west of Ramer.

PRAIRIE WARBLER — 20, 10/8; reported by Ganier and Clebsch (1942) from west of Ramer.

BLACKPOLL WARBLER — 2 at BHP on 11 May 1980 by CPN.

CERULEAN WARBLER — 6, 2 in Dismal Swamp area and 4 along Cypress Creek - Tuscumbia River, all on 23 May; 6 observed by Calhoun (1941) in bottoms near Hatchie River, not specified whether actually observed in McNairy County.

BLACK-AND-WHITE WARBLER — 20, 3/3, 1 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941).

AMERICAN REDSTART — 96, common in BHP area, scattered elsewhere in county; 3 at BHP on 11 May 1980 by CPN; described by Calhoun (1941:307) as "by far the most abundant resident warbler", and nesting activities continued until mid-July; observed in bottoms throughout study area.

PROTHONOTARY WARBLER — 241, 2/2, abundant in BHP area, pair carrying food to young in nest cavity on 23 May along Tuscumbia River by MGW, JRW; 5 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941) from flooded bottoms; 4 on 3 Aug. 1976 at BHP by MDW.

WORM-EATING WARBLER — 14, recorded by Calhoun (1941) in small numbers in McNairy County.

SWAINSON'S WARBLER — 6, 1/1; 1 along Huggins Creek, just SE of Finger by CPN; 1 along Chapel Creek just SE of Rose Creek by BBC, LCC, *et. al.*; others in BHP area; reported by Calhoun (1941) from Hardeman County, but not McNairy County.

OVENBIRD — 15, 1/1; 2 at BHP on 11 May 1980 by CPN.

LOUISIANA WATERTHRUSH — 37, 1/1; 2 adults carrying food at different points along Tuscumbia River; 1 at BHP on 11 May 1980 by CPN; recorded in bottoms by Calhoun (1941), and nest with just-hatched young observed in rock out-cropping along Tuscumbia River.

KENTUCKY WARBLER — 91, 5/4; nest with adult feeding young on 23 May near Stanfield Swamp by JRW; 4 at BHP on 11 May 1980 by CPN; described as common by Calhoun (1941), who observed singing until 13 July 1939; Ganier and Clebsch (1942) reported a pair feeding fledgling Brown-headed Cowbird; 2 on 3 Aug. 1976 at BHP by MDW.

COMMON YELLOWTHROAT — 314, 65/55; 3 fledglings on 23 May in field south of road going into BHP lake; 3 at BHP on 11 May 1980 by CPN; commonly found in old fields and along fence rows by Calhoun (1941).

HOODED WARBLER — 3; 1 at BHP on 11 May 1980 by CPN; reported by Calhoun (1941), most confined to bottoms.

CANADA WARBLER — 1 migrant on 23 May.

YELLOW-BREASTED CHAT — 133, 32/29; 1 on 3 Aug. 1976 at BHP by MDW.

SUMMER TANAGER — 192, 19/17; 4 at BHP on 11 May 1980 by CPN; found by Calhoun (1941) to occur most frequently in upland areas until end of nesting, then also in bottoms; reported by Ganier and Clebsch (1942) to be common in pines west of Ramer; 3 on 3 Aug. 1976 at BHP by MDW.

SCARLET TANAGER — 31, 1/1; pair observed by Calhoun (1941) on 20 June 1939 in pines 4.8 km E of Pocahontas.

NORTHERN CARDINAL — 340, 68/59; described by Calhoun (1941) as the most abundant bird in wooded areas; reported by Ganier and Clebsch (1942) from west of Ramer; 5 on 3 Aug. 1976 at BHP by MDW.

ROSE-BREASTED GROSBEAK — 2 at BHP on 11 May 1980 by CPN.

BLUE GROSBEAK — 41, 12/11; observed on 30 June 1951 between Pocahontas and Ravenden (Coffey 1951).

INDIGO BUNTING — 500, 99/76; 8 at BHP on 11 May 1980 by CPN; described by Calhoun (1941) as occurring wherever an opening occurred in the woods, in uplands or bottoms; reported by Ganier and Clebsch (1942) from west of Ramer, and nest found with 3 bunting eggs and 1 Brown-headed Cowbird egg; 10 on 3 Aug. 1976 at BHP by MDW.

DICKCISSEL — 14, 1/1.

RUFOUS-SIDED TOWHEE — 234, 50/45; 3 at BHP on 11 May 1980 by CPN; not reported by Calhoun (1941); 1 on 3 Aug. 1976 at BHP by MDW.

CHIPPING SPARROW — 51, 8/6; described by Calhoun (1941:309) as "although not abundant, is here one of the most characteristic birds of the pine woods"; reported by Ganier and Clebsch (1942) to be common west of Ramer.

FIELD SPARROW — 79, 26/20; reported from upland woods and fields by Calhoun (1941); reported by Ganier and Clebsch (1942) from west of Ramer; 2 on 3 Aug. 1976 at BHP by MDW.

LARK SPARROW — 2 adults and 1 fledgling on 24 May along roadside 1.5 km W of Jones Memorial Church, SE of Finger, by KHD, LHD; observed on 30 June 1951 between Pocahontas and Ravenden (Coffey 1951).

BACHMAN'S SPARROW — 3, 2/2; all on 23 May, locations as follows: along powerline 6 km SSW of Rose Creek, by BBC, LCC; in clearcut 2 km S of Beauty Hill Church by CPN; 2.1 road km NW of airport by CPN; reported by Calhoun (1941) to occur in small colonies, in old fields with broomsedge, sumac, and a few oak and pine trees, or in open areas in nearly pure pine stands; "several" reported by Ganier and Clebsch (1942:33) in brush land west of Ramer; 1 on 3 Aug. 1976 at BHP by MDW.

GRASSHOPPER SPARROW — 1 on 23 May, 4.5 km SW of Stantonville, by LS.

RED-WINGED BLACKBIRD — 421, 63/36; 8 at BHP on 11 May 1980 by CPN; a few reported by Calhoun (1941); 10 on 3 Aug. 1976 at BHP by MDW.

EASTERN MEADOWLARK — 263, 77/38; 3 at BHP on 11 May 1980 by CPN; described by Calhoun (1941) as fairly common; 2 on 3 Aug. 1976 at BHP by MDW.

COMMON GRACKLE — 550, 95/33; 5 at BHP on 11 May 1980 by CPN; observed by Calhoun (1941) only in Pocahontas area, where he did not consider them common; 2 on 3 Aug. 1976 at BHP by MDW.

BROWN-HEADED COWBIRD — 131, 23/15; 7 at BHP on 11 May 1980 by CPN; see accounts for Kentucky Warbler and Indigo Bunting.

ORCHARD ORIOLE — 57, 22/19.

NORTHERN (BALTIMORE) ORIOLE — 1, possibly territorial, on 24 May.

AMERICAN GOLDFINCH — 21, 4/2; a few reported by Calhoun (1941); 6 on 3 Aug. 1976 at BHP by MDW.

HOUSE SPARROW — 275, 88/17; found by Calhoun (1941) to be common in farming regions around Chewalla, uncommon elsewhere.

One-hundred twelve species were reported on the 1981 foray, and 93 of these species are here considered to breed in the county. Nonbreeding species on the foray include the herons and egrets, except for the Green-backed Heron and Yellow-crowned Night-Heron, the waterfowl except for the Wood Duck, the Black Tern and several passerines identified in the above list. Species which have been previously recorded in McNairy County, and are expected to still breed there, include the Wild Turkey, Eastern Screech-Owl, and Great Horned Owl. The Anhinga was reported nesting in 1980, but not observed in 1981. Species recorded on the foray which may breed in the county, and for which additional observations are desireable, include the Tree Swallow, Yellow Warbler, and Northern (Baltimore) Oriole.

At least one species, the Red-cockaded Woodpecker, has apparently been extirpated from McNairy County since the late 1960's. The Bewick's Wren was last reported in the area in 1979, and may still occur, although in much reduced numbers than at the time of Calhoun's 1939 survey. The population of several other species has changed since 1939, although, because of differences in survey methods, reporting methods, and timing of surveys, some caution must be used in comparing Calhoun's results with the 1981 results. Calhoun apparently concentrated his efforts in the bottomlands, and was present from late June through August, when many songbirds would have reduced their singing. Species apparently more common now include Broad-winged and Red-tailed Hawks, Whip-poor-will, Eastern Phoebe, Cliff and Barn Swallows, American Robin, Northern Parula, Rufous-sided Towhee, Red-winged Blackbird, Common Grackle, and Brown-headed Cowbird. Species apparently less common now include the Red-shouldered Hawk, Eastern Wood-Pewee, Bewick's Wren, and American Redstart. Except for the blackbirds and the Purple Martin, the rankings of the most abundant birds were similar in 1939 and 1981. The increase in the Northern Parula was unexpected; Calhoun (1941) described it as rare, while 43 were found in 1981. Calhoun (1941) described the American Redstart as the most abundant warbler. In 1981, 96 redstarts were reported, many fewer than the 243 Prothonotary Warblers and 379 Common Yellowthroats reported.

Acknowledgements: I wish to thank all the foray participants, especially Martha Waldron and Ben Coffey, who helped to organize the foray. Morris Williams and Ben Coffey provided unpublished records, and Morris D. Williams, Paul Hamel, and David Pitts commented on the manuscript.

Foray Participants: Betty Reid Campbell, James M. Campbell, Robert Casey, Ben B. Coffey, Jr., Lula C. Coffey, Kenneth H. Dubke, Lillian H. Dubke, William B. Fowler, Betty Fowler, Marjory Harper, Kenneth Leggett, Betty Leggett, Ruth Luckado, David L. Meyer, Charles P. Nicholson, Gerry Papachristou, Erma Rogers, Lee Shafer, Arlo Smith, Noreen Smith, Julia Thompson, Martha G. Waldron, Jeff R. Wilson. Other observers: Morris D. Williams.

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P.O. Box 402, Norris, TN 37828. Accepted 5 October 1984.

American Bittern (*Botaurus lentiginosus*), present throughout winter, 1983-1984, at Chattanooga. See Eastern Ridge and Valley Region Season Report, this issue. Photo by Robin A. Rudd.

MINUTES OF THE 1984 ANNUAL BOARD OF DIRECTORS AND BUSINESS MEETING

BOARD OF DIRECTORS MEETING

The 69th Annual Meeting of the Board of Directors of the Tennessee Ornithological Society convened on 19 May 1984 at Cloudland School, Roan Mountain, Tennessee. President Tony Koella called the meeting to order with Secretary Barbara Finney recording the minutes. The minutes of the 19 November 1983 meeting were approved as read.

REPORTS OF OFFICERS

Lil Dubke, VICE PRESIDENT for East Tennessee, reported that she had contacted each chapter and asked them to prepare a display sharing their projects for the year. She recognized the chapters which had brought displays and suggested that this project be repeated for the fall meeting. She announced that the packets of aids and speaker lists were ready to be picked up.

Middle Tennessee DIRECTOR-AT-LARGE Robbie Hassler reported that the Big South Fork bird survey has been progressing slowly. She also expressed concern about the extent and effect of clearcutting around Dale Hollow Lake by the U.S. Corps of Engineers.

CURATOR James Tanner reported little change in the archives since the fall meeting.

SECRETARY Barbara Finney appealed to the chapters to furnish her current lists of officers and directors.

The EDITOR of *The Migrant*, Charles Nicholson, reported that the March 1983 issue should be mailed shortly and the next issue is being typeset.

TREASURER George Payne reported assets of $36,631.12, liabilities of $11,700, and a reserve of $24,931.12. Since 14 November 1983, income had been $8,776 and expenses $4,657.

The EDITOR of *The Tennessee Warbler*, Sharon Bostick, submitted a report that was read in her absence. There were no other officers' or directors' reports.

REPORTS OF COMMITTEES

CONSERVATION — In the absence of a report, President Koella urged local chapters to form conservation committees. He also congratulated the Knoxville Chapter on their recent award for conservation which had been presented by Knoxville Heritage Foundation.

NOMINATING — Marcia Davis, chairperson, submitted the name of James A. Ferguson of Memphis for president-elect. This motion was made by Helen Dinkelspiel and seconded by Carolyn Bullock. The motion carried.

FORAY— Ben Coffey reported that although 25 persons had participated, high water had interfered with the Reelfoot Lake foray. He also reported that David Pitts was considering a follow-up in June. A discussion on the 1985 foray was scheduled for after the formal meeting.

OLD BUSINESS

Nelle Moore, who had examined the Constitution for possible revision, was absent, but sent an opinion that the inconsistencies did not affect the transaction of the society's business.

Lil Dubke made a motion to order new decals and to use the old ones in packets for new members. The motion was passed after being moved by Bert Hale and seconded by Robbie Hassler.

NEW BUSINESS

Robert Hatcher, of the Tennessee Wildlife Resources Agency, described sophisticated computer equipment that the TWRA was acquiring. He asked that a committee be formed to investigate conducting a state bird atlas. Lula Coffey moved that the president appoint such a committee, and Lil Dubke seconded. The motion carried.

James Tanner reported that the Cumberland Museum in Nashville had been housing a library of bird books which had been willed to TOS by William Walker. The museum wanted to return the books to the TOS as they needed the shelf space. Tanner said he would bring a list of the books to the Fall meeting for action by the TOS on their disposition. This motion was made by Tanner and seconded by Ben Coffey.

Chairman for the Fall Meeting, Fred Alsop, requested participants for the fall paper sessions.

Following a description of the Peregrine Falcon hacking project in Tennessee, Ken Dubke moved that TOS take as a conservation project the aiding of the restoration effort; and furthermore, that through the Chattanooga chapter, funds be channeled to aid this restoration. The motion was seconded by George Mayfield and then passed.

Charles Nicholson announced that the Certification Committee would meet after the banquet and that Season compilers are requested to meet with them.

BUSINESS MEETING

The Annual Business Meeting was held 19 May 1984 in the auditorium of Cloudland School following dinner. Gary Wallace, president of the host chapter, welcomed TOS members and thanked those who had assisted in banquet preparations. He expressed his appreciation to members of the Lee Herndon Chapter for helping with the organization of the meeting, and to Cloudland School officials, cooks, and Roan Mountain Garden Club members for their help.

Tony Koella opened the business meeting by requesting a round of applause for the hosts, the Lee Herndon Chapter. The secretary then summarized actions taken during the afternoon board meeting. Marcia Davis then nominated Jim Ferguson as president-elect, and he was elected by acclamation. Members from each TOS chapter were recognized, as were several Carolina Bird Club members who were also present. Charles Nicholson read a letter from the Tennessee Nature Conservancy requesting TOS cooperation in protecting and gathering information on Goose Pond. The meeting was then turned back over to Gary Wallace. He introduced Lil Dubke, who recognized chapters which had furnished displays of their activities. Sunday field trip plans were then discussed.

The evening program was given by Charles R. Smith, a native of Carter County now serving as assistant professor at Cornell University and as Director of Public Education at the Cornell Laboratory of Ornithology. He presented a program on involving amateurs in ornithological research and current projects at the Laboratory of Ornithology.

BARBARA FINNEY, *Secretary*.

BOOK REVIEW

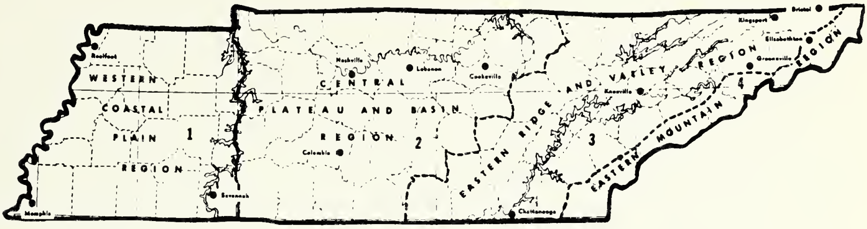
BIRDS OF NORTH AMERICA. Expanded, revised edition — by C.S. Robbins, B. Bruun, and H.S. Zim, illustrated by A. Singer. 1983. Golden Press, New York. 360 pp., 170 color plates, 632 range maps. $10.95 hardcover, $7.95 softcover. — The "Robbins" guide was first published in 1966, and at that time it broke ground for field guides. It was the first field guide to place detailed species accounts opposite plates which showed the birds in realistic settings, and was the first to include range maps and sonagrams. Perhaps more important, it was the first to include all North American species in one volume. The book reviewed here is a revised edition of the "Robbins" guide.

The plates have, for the most part, been retained from the first edition. Some of the paintings have been retouched, and additional sketches and silhouettes have been added. Unfortunately, some errors in the plates have been carried over to the new edition. Additional species have been inserted on some of the original plates, and 10 new plates of exotics and accidentals have been added. The color reproduction of some species seems better in the revised edition, with brighter, cleaner plates. Other plates have not fared so well. Many birds have slightly different colors than in the original edition, and I am not sure whether these are due to retouching of the plates or the printing process, but suspect a combination of both. The book is advertised as having a stronger binding than the original, and is not noticeably thicker, despite having 20 more pages.

The species descriptions are unchanged for most species, while a few have been extensively updated. While the bird names conform to the 1983 AOU checklist, the phylogenetic sequence is unchanged from the original edition. This was apparently a money-saving move, and it is unfortunate, because field cards and recent works are in the new order. Illustrations of "forms" or "races" of recently lumped species are retained, which makes it easy to distinguish "Bullock's" from "Baltimore" Orioles, etc. A different typeface is used in the new edition, which is somewhat easier to read. The sonagrams are retained, but have been redone so that they are cleaner and slightly larger. Although many birders dislike sonagrams, I find them useful, and in many cases, more helpful than written song descriptions. Some of the written song descriptions are of little help. The range maps have been updated, but, again, do not include state boundaries. They are useful in quickly showing the general range of a species, and they do show major migration routes.

In summary, the new "Robbins" guide is an improvement, but in some areas, does not live up to its potential. I wish some different trade-offs had been made in order to keep the price low. I fail to see why so many accidental birds, or birds never likely to be seen outside of Siberia or the outer Aleutians are included in a "popular" guide. This money could have been better spent in improving the treatment of more frequently encountered species. Nevertheless, I will continue to recommend "Robbins" to beginning and intermediate birders. — CHARLES P. NICHOLSON.

THE SEASON



WINTER: 1 DECEMBER 1983 - 29 FEBRUARY 1984

December was mild, with above average temperatures until the final week of the month. Then sub-zero ^{0}F temperatures struck, setting new low records in parts of the state. This cold snap did not last long, but many small and medium-sized bodies of water froze over, including Reelfoot and Radnor Lakes. January temperatures were below average, while February temperatures were near or above average. Precipitation during January and February was below average in much of the state, and there was little snow in most regions.

Several "half-hardy" species lingered long enough to be counted on the early Christmas Bird Counts, but there were few reports of these birds on counts held at the end of the period. There were, however, many other interesting observations. Unusual waterfowl included several Tundra Swans and an Eurasian Wigeon in Middle Tennessee, and 2 Harlequin Ducks in East Tennessee, the first state record of this species. Bald Eagle numbers, as recorded on the 1984 mid-winter survey (Table 1), mostly held on 7-8 January, were lower than in recent years. Much of this decrease was due to low numbers at Reelfoot Lake, which was frozen over at the time of the survey. Bald Eagle numbers in Middle and East Tennessee were average or above average. A Yellow Rail was observed in Middle Tennessee in December, and several rare gulls were reported. These included a Black-legged Kittiwake on Barkley Lake in mid-December, and a Great Black-backed Gull and Glaucous Gull at Paris Landing on Kentucky Lake later in the winter. This was a northern finch invasion year, and Pine Siskins and Evening Grosbeaks were reported from most of the state. Purple Finches were present in lower than average numbers in some areas, while House Finches continued their increase throughout the state. — CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION — *Goose-Owl:* Canada Goose: 30 Nov thru Dec, common in the 3 state area with 1000+ at Mud Lake, MS, 5000+ at Wapanocca NWR, AR, and 2000+ at REL (BBC, LCC). Sharp-shinned Hawk: 28 Dec (1) MEM (JRW). NORTHERN GOSHAWK: 8 Jan (1) BRF (MT, WT, DM, GM). Red-tailed Hawk: 4 Feb (28+, in vicinity of blackbird-starling roost, feeding on birds found on ground) MEM (Charles W. McCreary, JRW). GLAUCOUS GULL: 12 Jan (1) Paris Landing, Henry Co. (DWB), details to be published. Short-eared Owl: 5 Feb (1) BRF (GM).

Flicker-Grosbeak: RED-SHAFTED FLICKER: 18 Dec (2) MEM (JRW, JBG). Gray Catbird: 28 Nov (1) MEM (BBC, LCC); 18 Dec (1) MEM (WRP). Orange-crowned Warbler: 17 Dec (1) REL (DRJ); 18 Dec (1) MEM (MTOS). Yellow-breasted Chat: 15 - 29 Dec (1) MEM (BBC, LCC). Dickcissel: 20 Jan - 7 Feb (1) MEM (Jo L. Levy); 28 Jan - 5 Feb (1) MEM (Robert G. Taylor). Amer.

Tree Sparrow: 31 Dec - 8 Jan (4-20) PEF (JRW). Chipping Sparrow: 2 Nov (1) Fort Pillow (HBD). Harris' Sparrow: 17 Dec (1) Obion Co. (DM, GM). Western Meadowlark: 29 Jan (1) PEF (JRW, JBG); 19 Feb (1) PEF (WRP). House Finch: 23 Dec - 24 Feb (1) MEM (BBC, LCC); 13-14 Feb (1) MEM (Nelle Moore); 18 - 21 Feb (1) MEM (Wendell L. Whittemore). Evening Grosbeak: 17 Dec (2) Lake Co. (BBC); 23 Dec (2) Henderson (TC); 11 Jan (2) Shelby Forest State Park (HBD); 15 Jan (5) Millington (David Phillips).

Locations: BRF—Britton Ford, Henry Co.; MEM—Memphis; REL—Reelfoot Lake; PEF—Shelby Co. Penal Farm.

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TABLE 1. 1984 MID-WINTER EAGLE SURVEY

	Bald Eagle			Golden
	Adult	Imm.	Total	Eagle
West Tennessee				
Reelfoot Lake	10	10	20	-
Lake Isom NWR	2	1	3	-
Mississippi River	13	5	18	-
Tennessee NWR	12	5	17	-
Hardin Co.	1	-	1	-
Pickwick Resv.	2	-	2	-
Totals	40	21	61	-
Middle Tennessee				
Land-Between-the-Lakes	16	17	33	-
Cross Creeks NWR	2	-	2	-
Cheatham Reservoir	2	-	2	-
Center Hill Resv.	3	2	5	-
Cordell Hull Resv.	1	-	1	-
Dale Hollow Resv.	27	28	55	-
Woods Reservoir	1	-	1	-
Totals	53	47	100	-
East Tennessee				
Norris Reservoir	5	-	5	-
Melton Hill Resv.	1	-	1	-
Douglas Reservoir	3	-	3	-
Cherokee Resv.	1	-	1	-
Fort Loudon Resv.	1	-	1	-
Watts Bar Resv.	4	1	5	-
Chickamauga Resv.	4	-	4	-
Raccoon Mtn. Resv.	3	3	6	1 imm.
Totals	23	4	27	1
GRAND TOTALS	116	72	188	1

CENTRAL PLATEAU AND BASIN REGION — The region experienced a dry, cold winter. Rainfall in Nashville for the months of January and February was 4.35 inches below normal, a condition generally duplicated throughout the mid-state area. Severe cold penetrated the region in late December, causing nearly all small and medium-sized bodies of water to freeze over until February. For instance, Radnor Lake froze completely for some time, as did the Metro Center ponds, those at Monsanto in Columbia, and the Franklin Reservoir; the larger lakes in the region retained open water but were often frozen for considerable distances out from shore, as at Dale Hollow and Old Hickory. Needless to say, these conditions affected numbers of water-related birds negatively.

Of those regional Christmas Bird Counts in the compiler's hands prior to the reporting deadline, most species seemed not overly reduced in numbers from preceding years, though many counts were conducted before severe cold reached the region. Since several counts were unavailable for analysis, however, no general conclusions can be drawn from them about the status of specific species in the region. Exceptional numbers and species for some counts are noted below.

Two exotic species deserve mention, since they are not currently recognized as part of the regional (or state) avifauna. The Nashville CBC accounted for a Ruddy Shelduck, while Mute Swans were seen on the Hickory-Priest CBC and at Cross Creeks National Wildlife Refuge. The Shelduck was banded on the left tarsus, initiating speculation that it might be one of the birds banded the previous winter at Wheeler National Wildlife Refuge in Alabama; however, this species is kept by many waterfowl fanciers, many of whom band their birds. Certainly the origin of this bird, sighted from 23 December until at least 19 January is suspect. Less suspicion may be attached to the Mute Swans which were recorded in the region. None of these birds (1 seen on Old Hickory 31 December, 2 seen there 22 January, and 1 seen at CCNWR 16 January) was banded, so far as could be determined; also, the concentration of sightings suggests the possibility that an invasion of genuinely feral birds was involved (M.L. Bierly argues this position, for instance). However, no conclusive evidence can be brought forward to prove that these birds were not escapes or the progeny of escapes. As is widely known, the problem of origin finally prevented the TOS Certification Committee from including the species on "The Official List of Tennessee Birds", though several records of Mute Swans in Tennessee are in print and probably a few others exist that are not.

Loon-Goose: Common Loon: 31 Dec (1) Hickory-Priest CBC (NTOS); 8 Jan (1) CCNWR (CGD); numbers and sightings down, undoubtably due to cold weather. Pied-billed Grebe: 31 Dec (19) Hickory-Priest CBC (NTOS), largest number reported. Horned Grebe: 31 Dec (55) Hickory-Priest CBC (NTOS), largest report. Double-crested Cormorant: 11 Dec (16) CCNWR (DWB); 13 Dec (30) DRU (Wesley K. James); 2 Jan (4) WDR (ELR). American Bittern: 11 Dec (1) CCNWR (BHS, SJS, ARH, Ron D. Hoff), limited winter records in region. Great Blue Heron: 17 Dec (37) Ashland City CBC (NTOS); 31 Dec (32) Hickory-Priest CBC (NTOS); 8 Jan (50) CCNWR (CGD, DRJ); largest concentrations reported. Great Egret: until at least 12 Dec (2) DRU (CPN), very late. Black-crowned Night-Heron: 6 Jan (1) Old Hickory Dam, DVC (CGD); 14 Jan (1) MOP (GRM); 25 Jan (1) PPL (MLM); species present despite severe cold and frozen conditions. Tundra Swan: 1-2 Dec (1 imm) Hunter's Point, WLC (CGD, TJW); 17 Dec (4) Ashland City CBC (DWB); 17 Dec (1) Murfreesboro CBC (TJW); 31 Dec (1) Hickory-Priest CBC (NTOS); 1 Jan (3 imm) Old Hickory Lake (CGD); 13 Jan (1) CCNWR (DWB); 10 Feb (1) BAL (DWB); 20 Feb (1) Bear Creek Wildl. Mgt. Area, SWC (DWB); although some of these sightings may represent the same individual(s), species more regular than usual in region. Snow Goose: 11 Dec (50) CCNWR (DWB); 17 Dec (1 blue) Ashland City CBC (DWB); 31 Dec (1 snow, 1 blue) Columbia CBC (ARL); 4 Jan (1) MEC (CGD); 8 Jan (6) CCNWR (CGD, DRJ); 8 Jan (78) LOR (DJS). Canada Goose: 29 Dec (33,000) CCNWR (FFR); 22 Jan (1 small race) Hendersonville, SUC (DTC, JPC), thought to be a Hutchinson's.

Ducks: Amer. Black Duck: 20 Jan (11,000) CCNWR (FFR). Mallard: 29 Dec (44,270) CCNWR (FFR); 28 Jan (1000) PAP (CGD); 13 Feb (200) Hillsboro, CFC (ELR); most observers noted higher than normal numbers present. Northern Pintail: 15 Dec (1245) CCNWR (FFR). Northern Shoveler: 16 Dec (1) PAP (CGD); 31 Dec (1) Columbia CBC (ARL); 8 Jan (1) CCNWR (CGD, DRJ); only reports. Gadwall: 3 Jan (1200) CCNWR (FFR). EURASIAN WIGEON: 30 Dec - 16 Jan (1 male) CCNWR (DWB, CGD, DRJ, FFR), 2nd straight winter here; about 5th state record. American Wigeon: 15 Dec (1530) CCNWR (FFR). Canvasback: 26 Dec (6) RDL (ATT); 31 Dec (1) Columbia (ARL); 31 Dec (13) Dale Hollow L., PIC (DRH); 2 Jan (4) and 17 Jan (10) Percy Priest Dam, DVC (CGD); at EOP (13) RDL (ATT). Redhead: 11 Dec (4) BAL (SJS, BHS, ARH); 31 Dec (2) Dale Hollow L., PIC (DRH); 31 Dec (2) Columbia CBC (ARL). Ring-necked Duck: 15 Dec (5810) CCNWR (FFR); irregularly through period (up to 200) RDL (ATT). Greater Scaup: 10 Jan (1 male) RDL (CGD), only report. Lesser Scaup: 31 Dec (125) Dale Hollow L., PIC (DRH), largest flock reported. OLDSQUAW: 10 Dec (1 female) BAL (DWB), only report of this seldom-seen diver. White-winged Scoter: 3 Dec (1) WDR (TJW), only report. Common Goldeneye: 18 Dec (23) BAL (DWB); 31 Dec (170) Hickory-Priest CBC (NTOS), high number; 2 Jan (30)

Percy Priest Dam, DVC (CGD); 2 Jan (6) WDR (ELR); 28 Feb (8) LOR (DJS). Hooded Merganser: 2 Jan (25) WDR (ELR). Common Merganser: 17 Jan (2) Old Hickory Dam, DVC (CGD); 29 Jan (7) PPL (CGD); only reports. Red-breasted Merganser: 31 Dec (46) Hickory-Priest CBC (NTOS), highest number reported.

Eagle-Merlin: Bald Eagle: 26 Dec (1 ad) Drake's Creek, SUC (Jack Brummit, *fide* Robert Hatcher), only report of a bird most likely not included on the 1984 Mid-winter Eagle Survey (Table 1). Northern Harrier: 9 Jan (1 injured) FKC (*fide* KS), taken to CBRF. Sharp-shinned Hawk: 4 Jan (2) MEC (CGD); 30 Jan (1) Nashville (ATT); 18 Feb (1) Basin Spring, WMC (KAG); only reports other than CBCs. Cooper's Hawk: 16 Feb (1) Croft Farm, DVC (ATT); only report other than CBCs. NORTHERN GOSHAWK: 31 Dec - 3 Jan (1) MEC (DFV, Steven Rannels), now over 10 NA records. Red-tailed Hawk: 10 Dec (1 dark phase) DRU (SJS, BHS), few records of this western form. Rough-legged Hawk: 11 Dec (3), 28 Jan (1), and 11 Feb (3) Fort Campbell, MTC (CGD, DTC, JPC, *et al.*), 1 of these dark phase; 2 Jan (1) Duck River Res. CBC (ARL); 22-25 Jan (3) 4 mi S Murfreesboro (ALH, Wilma J. Hunter, Richard E. Hunter), regular past 5-8 yrs at site; 26 Jan (1 injured) LSC (*fide* KS), taken to CBRF; numbers similar to previous winter. Golden Eagle: 11 Dec (1 ad), 10 Jan (1), and 16 Jan (1 ad, 2 imm) CCNWR (DWB, FFR, MT, WT, DM); 16-18 Dec (1 imm) Ashland City (CGD, MLM, M. Patricia Stallings); 15 Jan (1 imm) DRU (RJM, CGD). Merlin: 5 Feb (1) BYR (Lava Kay, *fide* RCH).

Rail-Kittiwake: YELLOW RAIL: 8 Dec (1) BYR (RCH, DRH); details published in *Migrant* 55:15, 1984; about 9th regional and 12th state record. Virginia Rail: 31 Dec (8) MOP (ARL), only report. Sora: 31 Dec (10) MOP (ARL), only report. American Coot: reduced in NA (NTOSRC). Sandhill Crane: 1 Dec (87), 2 Dec (50+), 4 Dec (28), 5 Dec (80), 6 Dec (90), 9 Dec (9), 11 Dec (9), 16 Dec (190), & 21 Dec (6) near BYR (DRH, RCH, MZ, Jessie Baker), good fall migration; bird at DRU mentioned last report stayed until at least 12 Dec (CPN); 2 spring reports: 27 Feb (35) BYR (MZ); 27 Feb (7) Cookeville (RWS). Least Sandpiper: 17 Dec (6) MOP (O. Bedford Lochridge). American Woodcock: higher than normal in NA (NTOSRC); 23 Feb (2 calling) Hillsboro, CFC (ELR). Bonaparte's Gull: 31 Dec (300) Hickory-Priest CBC (NTOS), high number. Ring-billed Gull: 31 Dec (3800+) Hickory-Priest CBC (NTOS), high number. Herring Gull: 3 Dec (1) LOR (DJS), few county records. GREAT BLACK-BACKED GULL: 20 Feb (1 first-year) SWC side of Hwy 79 bridge - later seen at Paris Landing State Park, Henry Co. (DM, WT, MT, DWB), 2nd or 3rd state record; details should be published. BLACK-LEGGED KITTIWAKE: 10-12 Dec (1 imm) BAL (DWB, CGD, *et al.*), about 4th state record, but status clouded by unpublished reports (see *Migrant* 43:63); details published in *Migrant* 55:15.

Nighthawk-Yellowthroat: Common Nighthawk: 5 Dec (1) Daisy Hill, DVC (*fide* Jan C. Alexander). Red-headed Woodpecker: "many more than usual" in NA (NTOSRC); "a bit more than normal" in MUC/LSC (GRM). Yellow-bellied Sapsucker: "lower than normal" in NA (NTOSRC). Horned Lark: all period (up to 250) LOR (DJS), high number; 20 Jan (25) Bedford Co. (CGD); very sparse in NA (NTOSRC). Purple Martin: 12 Feb (1) BYR (RCH), first returnee reported. Bewick's Wren: 2 Jan (8) Duck River Res. CBC (ARL), high wintering number for this much-diminished species. Eastern Bluebird: 2 Jan (61) Duck River Res. CBC (ARL), an increase from past years. Gray Catbird: 29 Dec to mid-Jan (1) Deerfield, LWC (Lloyd M. Clayton), few winter records. European Starling: numbers down in NA (NTOSRC); 17 Dec (6,000,000) Murfreesboro CBC (ALH), here's where they all went! Palm Warbler: 16 Dec (1) Edgar Evins State Park, DeKalb Co. (MLM), late. Common Yellowthroat: 10 Dec (1) DRU (SJS, BHS); no CBC reports.

Sparrow-Oriole: Amer. Tree Sparrow: 26 Dec (1) Nashville CBC (NTOS); 30 Dec (1), 7 Jan (20+), & 13 Jan (1) CCNWR (DWB, CGD, TJW); 2 Jan (1) Columbia CBC (ARL); minor invasion indicated. Chipping Sparrow: 28 Dec (12) Highland Rim CBC (ELR), only report of season. Vesper Sparrow: 26 Dec (6) Nashville CBC (RJM), high number for so late. Lark Sparrow: 1 Feb (1) Columbia (Edward Byassee), rare in winter. Fox Sparrow: good numbers in MUC/LSC (GRM), WMC (SJS), & SUC (BH). Lincoln's Sparrow: 26 Dec (1) Nashville CBC (NTOS), rare in winter. Lapland Longspur: 26 Dec (2) Nashville CBC (KAG), seen a few days earlier (DFV); 30 Dec (500+) CCNWR (DWB, CGD), very high number; 16 Jan (20+) CCNWR (DM, WT, MT); good year for this species. SNOW BUNTING: 30 Dec (1) CCNWR (DWB, CGD), rare visitor. Rusty Blackbird: 6 Dec - 5 Feb (up to 30) Nashville (ATT); all period (up to 28) Gallatin (DTC, JPC). Common Grackle: 14 Jan (1 albino) Hillsboro, CFC (ELR). Northern Oriole: 17 Dec (1) Murfreesboro CBC (TJW *et al.*), thought to have been a Bullock's, though description suggests Baltimore possible.

Finch-Grosbeak: Purple Finch: generally less common than usual, as in DVC (ATT), MUC/LSC (GRM), & CFC (ELR), but about normal in WMC (SJS) and "numerous" in PUC (RWS). Banding efforts for this species: in DVC over 200 by ATT and less than 100 by KAG; in WMC about 340 (SJS). House Finch: population buildup continues with 150+ in SUC (DTC, JPC), 175+ banded and "far more numerous than ever before" in DVC (DFV, ATT, KAG), flocks of 100-200 in RUC (ALH), and "more common than usual" in MUC/LSC (GRM). Pine Siskin: modest invasion year with up to 50 in SUC (DTC, JPC), 1-3 in MTC (AHH), "spotty" in DVC (ATT), 1-8 in RUC (ALH), and "more than usual" in MUC/LSC (GRM). American Goldfinch: no consensus with "normal numbers" in MUC/LSC (GRM), "less than usual" in DVC (ATT), "good numbers" (up to 135+ by EOP) in PUC (RWS), and slightly down from 1982-1983 in WMC with 118 banded (SJS). Evening Grosbeak: widespread but with few areas holding large numbers: up to 45 in SWC (DWB), up to 36 in MTC (AHH), 3-13 at 2 sites in SUC (DTC, JPC, BH), up to 6 in PIC (RCH), up to 15 in CHC (NTOS), up to 10 in DVC (ATT), up to 40 in PUC (RWS), up to 80 per day (150+ banded) in WMC (SJS), up to 39 at 2 sites in MUC (Kenneth G. Anderson, ARL), up to 20 in LWC (DJS), up to 25 in CFC (ELR), and up to 16 in Grundy Co. (Violette Wakeland).

Locations: BYR—Byrdstown, Pickett Co.; CBRF—Cumberland Bird Rehabilitation Foundation, Wilson Co.; CCNWR—Cross Creeks National Wildlife Refuge, Stewart Co.; CFC—Coffee Co.; CHC—Cheatham Co.; DRU—Duck River Unit, Tennessee National Wildlife Refuge, Humphreys Co.; DVC—Davidson Co.; FKC—Franklin Co.; LOR—Loretto, Lawrence Co.; LSC—Lewis Co.; LWC—Lawrence Co.; MEC—Metro Center, Davidson Co.; MOP—Monsanto Ponds, Maury Co.; MTC—Montgomery Co.; MUC—Maury Co.; NA—Nashville Area (includes all of Davidson Co. and parts of 7 other surrounding counties); PAP—Pardue's Pond, Dickson Co.; PIC—Pickett Co.; PPL—Percy Priest Lake (in several counties); PUC—Putnam Co.; RDL—Radnor Lake, Davidson Co.; Res.—Reservoir; RUC—Rutherford Co.; SUC—Sumner Co.; SWC—Stewart Co.; WDR—Woods Reservoir, Franklin Co.; WLC—Wilson Co.; WMC—Williamson Co.

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EASTERN RIDGE AND VALLEY REGION — The early part of December was mild throughout the region. Then, starting in the northeastern section on 23 December, the first severe cold front of the season moved in. It reached the Knoxville and Chattanooga areas the next day, bringing with it sub-zero temperatures. In the northern part of the region, January temperatures were below average and February saw above average temperatures. Knoxville registered near normal temperatures and February was warm. At Chattanooga, January was somewhat cooler than usual and February warmer than normal.

The contrasts in weather conditions produced some noticeable changes in the avian populations. Rudd, and others, documented the first wintering of the American Bittern at Chattanooga. In the Hiwassee River Area, 5 Great Egrets were regular until the cold weather hit and then they were not observed again after 31 December. Waterfowl numbers peaked in the Hiwassee River Area on 31 December and 4 Mute Swans wintered in the Johnson City area. Two Harlequin Ducks were shot on Norris Lake, adding a new species to the Tennessee bird list.

A remarkable observation of 60 Sandhill Cranes were recorded on 20 January as they flew in a northwesterly direction over Chattanooga. Was the weather the reason the cranes arrived at the Blythe Ferry section of the Hiwassee River Area on the early date of 10 February? Some of these birds spent time feeding and resting while others were later noticed migrating over.

The number of Killdeer was greatly reduced in the Hiwassee River Area and Savannah Bay. The number of Dunlin was also below average. No Dunlin observations were made past November at Douglas Lake by Koella and no sightings were made from their usual areas along the Hiwassee River. At Savannah Bay, sightings were very erratic compared to the past, leading one to speculate where they could be feeding.

At Chattanooga an unidentified swallow was reported on 17 December and a Common Yellowthroat was spotted at Jonesborough on 14 January by Rick Knight.

The big event of the season was the irruption of northern finches. Few birds were noticed in December with very large numbers of Pine Siskins and Evening Grosbeaks swamping many feeders throughout the region in January and February. As is so often the case, some locations had many while other areas had few. In perspective, this would be considered a heavy invasion year for the region. Either few people bothered to interpret the Red-breasted Nuthatch numbers - other than Nicholson for the Knoxville area - or the birds were widely dispersed and not noticed in their regular habitat. In summary, a light to moderate invasion for this species while stressing closer attention should be focused on their numbers in the future. The Purple Finch seemed to be widespread in moderate numbers. On the other hand, their close relative, the House Finch, was dramatically increasing in numbers in all areas. Comment was also received where there were many House Finches, numbers of Purple Finches were much lower. Is the House Finch a more dominant species?

Loon-Goose: Common Loon: 3 Dec (2) BOL (RLK); 6 Feb (2) BOL (DH, GWS); regular, max 17 Dec (17) CHA CBC (CTOS). Pied-billed Grebe: regular, max 17 Dec (122) CHA CBC (CTOS); 31 Dec (151) HRA CBC (CTOS). Horned Grebe: regular, max 17 Dec (95) CHA CBC (CTOS); 1-4 all period BOL (RLK *et al.*); 10 Dec (7) BLC (JAK). RED-NECKED GREBE: 17 Dec (1) CHL, on CHA CBC (CDB); third record from CHL. Double-crested Cormorant: 30 Dec (1) BOL

(RLK); regular Watts Bar Lake, max 10 (WKJ); 4 Dec (11) CHL (KHD, LHD), then 3 intermittent CHL. American Bittern: first found on CBC, 17 Dec (1) CHA, present to EOP (RAR *et al.*). Great Blue Heron: 3 Dec (158) DOL (JAK); regular max 31 Dec (292) HRA CBC (CTOS). Great Egret: 5 regular HRA, last report 4 on 31 Dec (KHD, LHD, JAK). Black-crowned Night-Heron: 31 Dec (1) HRA CBC (DRJ). Tundra Swan: 13-15 Dec (4) SAB (KHD, LHD, CDB). Mute Swan: 4 first noticed on BOL 30 Dec, then they moved to a small pond in Johnson City, last seen 22 Feb (RLK). White-fronted Goose: 21 Feb (1) OKR (WKJ). Snow Goose (white morph): 4-7 Dec (5) HRA (KHD, LHD). Snow Goose (blue morph): 4-7 Dec (2-3) HRA (KHD, LHD); 22, 24 Feb (1) OKR (Lou Fuller, Betty Mason). Canada Goose: regular, max 31 Dec (2206) HRA CBC (CTOS).

Ducks: Green-winged Teal: regular, max 7 Dec (550) HRA (KHD, LHD). Amer. Black Duck: 7 Jan (150) DOL (JAK); regular, max 31 Dec (1329) HRA CBC (CTOS). Mallard: 7 Jan (400) DOL (JAK); 21 Jan (200) FLL (JAK); regular, max 31 Dec (16,138) HRA CBC (CTOS). Northern Pintail: 20 Feb (12) BOL (RLK); regular, max 14 Jan (110) HRA (KHD, LHD). Blue-winged Teal: 17 Dec (2) CHA CBC (DNW). Northern Shoveler: 4 Dec (6) CHL (KHD, LHD); 12 Dec (1) JEC (JAK); 31 Dec (15) HRA CBC (CTOS). Gadwall: regular, max 23 Dec (525) CHL (KHD, LHD). American Wigeon: irregular, max 31 Dec (198) HRA CBC (CTOS). Canvasback: 20 Dec (2) RAC (Linda K. Doyle, Randall L. Doyle); 16 Jan (1) CHL (KHD, LHD); 22 Jan - 14 Feb (2-3) BOL (MD, DH). Redhead: 3 Dec (16) DOL (JAK); 20 Feb (12) BOL (RLK); 6 reports, max 25 Feb (33) CHL (KHD, LHD). Ring-necked Duck: regular, max 4 Dec (650) CHL (KHD, LHD). Greater Scaup: regular, max 17 Dec (301) CHA CBC (CTOS). HARLEQUIN DUCK: 8 Jan (2 shot) Norris Lake (*fide* CPN), first state record, details to be published. Black Scoter: 17 Dec (1) CHL, CHA CBC (LHD). White-winged Scoter: 3-4 Dec, 19, 25 Feb (1) CHL (KHD, LHD, RCS); 20 Jan (1) Holston R. at New Market (Frank Fisher, *fide* Marcia L. Davis). Common Goldeneye: max 7 Jan (100) CHL (CDB); 14 Jan (102) HRA (KHD, LHD). Bufflehead: max 17 Dec (112) CHA CBC (CTOS). Hooded Merganser: 8 Jan (62) BLC (JAK); max 14 Jan (102) HRA (KHD, LHD). Common Merganser: 30 Dec - 27 Jan (2-10) BOL (RLK); 21 Jan (6) RAC (KHD). Red-breasted Merganser: 1 Jan - 12 Feb (1-8) CHL (KHD, LHD); 2 Jan - 14 Feb (1-3) BOL (RLK *et al.*). Ruddy Duck: 8 Dec (3) BOL (SG, GWS); 30-75 regular CHL (KHD, LHD).

Harrier-Woodcock: Northern Harrier: 18 Feb (1) Limestone (LHTOS). Sharp-shinned Hawk: 5 sightings EJC, below average (LHTOS). Cooper's Hawk: 3 sightings EJC, below average; 1 throughout period at LaFollette (GWM); fewer than normal reports in KNX area (KTOS). Rough-legged Hawk: 8-22 Jan (1, dark phase) Benton airfield (DNW). Golden Eagle: through Jan (1) RAC (KHD, ACD *et al.*). Merlin: 31 Dec (1) HRA CBC (CDB, JTP, Albert M. Jenkins). American Coot: max 23 Jan (1700) CHL (KHD, LHD); max 31 Dec (2997) HRA CBC (CTOS). Sandhill Crane: total of 316 reported in Bradley, Hamilton and Meigs Cos. from 1-23 Dec (KHD, LHD, RCS, Carl W. Campbell *et al.*); 20 Jan (60 flying NW) CHA (Judy Broyles); then regular spring migration beginning early on 10 Feb, 17 observations of 455 cranes in Bradley, Hamilton, Meigs and Sequatchie Cos. Killdeer: max 5 Dec (116) HRA (KHD, LHD); numbers later in season at SAB, HRA much lower than average (KHD, LHD). Spotted Sandpiper: 17 Dec (1) CHA CBC (RCS, JTP), same location as bird found previous winter. Least Sandpiper: 4 records of 3-6 birds HRA (KHD, LHD); 14 Feb (8) SAB (KHD, LHD). Dunlin: 26 Nov (200) DOL (JAK), not found there later in season; 40-50 sporadic SAB (KHD, LHD), lower numbers and not as consistent as past winters; not found in usual places in HRA (KHD, LHD). Common Snipe: late Jan, early Feb (1-2) EJC (LHTOS). American Woodcock: 17 Dec (1 singing) Amnicola Marsh, CHA (KHD); 15 Feb (1) AUS (RLK); 17 Feb (1) JNB (RLK).

Gull-Warbler: Bonaparte's Gull: 8-12 Dec (3-22) BOL (MD, GWS, SG, RLK); 17 Dec (138) CHA CBC (CTOS), only 2 other reports from CHL during period; 18 Dec (97) KNX CBC (KTOS) - much higher than average. Ring-billed Gull: 150-200 regular BOL (LHTOS); max 31 Jan (550) CHL (KHD, LHD). Herring Gull: 8-10 regular BOL (LHTOS). Common Barn-Owl: 15-29 Feb (1) JNB (RLK); 27 Jan (1) LaFollette (GWM); 1 through season at KNX (Paul W. Parmalee). Red-headed Woodpecker: 1 Dec (1) EJC (MD); higher than average number of reports KNX - at least 7 (*fide* CPN). Eastern Phoebe: few sightings EJC (LHTOS). Horned Lark: 5 Jan (6) JNB (RLK); fewer than normal in JEC, GNC (JAK); 20 at Benton airfield (DNW). Tree Swallow: 6 Nov (12) GNC (JAK). Red-breasted Nuthatch: widespread in moderate numbers in KNX area (KTOS); not considered large invasion year at CHA. Brown Thrasher: 3-5 wintered EJC (LHTOS). Water Pipit: 7, 21 Jan (12-15) GNC (JAK); 1-40 occasional at HRA (KHD, LHD). Cedar Waxwing: lower than average numbers at KNX (KTOS). Loggerhead Shrike: 1-2 all period at JNB (RLK); 10 Dec (1) BLC (JAK); higher than average count of 9 on KNX CBC, 18 Dec (KTOS); 1-2 regular SAB, HRA (KHD, LHD). Pine Warbler: present through winter at Norris (LJF, CPN) and at KNX (KTOS); 2-3 regular at CHA (JAP). Common Yellowthroat: 14 Jan (1) JNB (RLK).

Sparrow-Grosbeak: Amer. Tree Sparrow: 31 Dec (2) HRA CBC (Peter D. Robinson, JAK, LHD, ACD); 17 Jan (25+) Speedwell (GWM). Chipping Sparrow: 23 Jan (2) Hamilton Co. (KHD, LHD). Vesper Sparrow: 4, 19, 31 Dec (1) HRA (KHD, LHD). Fox Sparrow: only 2 reports at EJC (RLK); higher than average numbers at KNX (KTOS). Lincoln's Sparrow: 31 Dec (1) HRA CBC (RAR). White-crowned Sparrow: 2-4 regular JNB (RLK); 3, 14 Feb (3) Tri-Cities Airport (RLK); lower than normal numbers in EJC area; present in JEC, GNC (JAK). Rusty Blackbird: higher than average numbers in KNX area, 3000 on CBC on 18 Dec (KTOS). Brewer's Blackbird: 6 Feb (1) CHA (JAP). Purple Finch: average numbers EJC (LHTOS); widespread in moderate numbers at KNX (KTOS); common at CHA, with 261 banded at COL (REL). House Finch: abundant and becoming nuisance at some feeders at EJC (LHTOS); widespread and increasing in KNX area, several reports of over 100 at feeders (*fide* JBO, KTOS); 37 banded at COL (REL). Pine Siskin: single birds reported thru Dec, then became very numerous in Jan at EJC (LHTOS); 200+ by end of Feb at BLC feeder (JAK); abundant throughout KNX area (KTOS, JBO *et al.*); large numbers arrived in Jan at CHA, 719 banded at COL (REL). Evening Grosbeak: few in Dec, several small flocks in Jan - Feb at EJC (LHTOS); locally common in KNX area, abundant by Feb at Norris, elsewhere (*fide* JBO, CPN, LJF *et al.*); at CHA, few Dec reports, widely dispersed in Jan and Feb (CTOS); 285 banded at COL (REL).

Locations: BLC—Blount Co.; BOL—Boone Lake; CHA—Chattanooga; CHL—Chickamauga Lake; DOL—Douglas Lake; EJC—Elizabethton-Johnson City area; FLL—Fort Loudon Lake; GNC—Greene Co.; HRA—Hiwassee River Area; JEC—Jefferson Co.; JNB—Jonesborough; KNX—Knoxville; OKR—Oak Ridge; RAC—Raccoon Mtn. Pumped Storage Reservoir; SAB—Savannah Bay.

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EASTERN MOUNTAIN REGION — The overall weather was somewhat milder than usual, with the only severe cold from 23 December through the first week of January. Temperatures from mid-January through February were mild, and there was practically no snowfall. February was the only month with above average precipitation. Numbers of northern finches were low in December, but the Pine Siskin and Evening Grosbeak were common by the end of the period.

Loon-Woodcock: Common Loon: 31 Dec (2) SHL (GDE, RDL), only report. Horned Grebe: 26 Dec (1) WTL (Fred J. Alsop), only report. Great Blue Heron: up to 4 in ELI thru period (LHTOS); 10 Dec - 7 Jan (1) RNM area, 3000-3500 ft. elev. (*fide* GDE). Wood Duck: 14 Feb (2 pairs) ELI (GDE, RLK), first spring report. Green-winged Teal: 29 Dec (1), 3 Jan (2) WibL (GDE, RLK). Canvasback: 1 Dec - 15 Jan (WatR) (DH). Ring-necked Duck: 1 Jan (3) WibL (RLK), only report. Greater Scaup: 1 Jan - 2 Feb (1-4) ELI (GDE, RLK). Hooded Merganser: 17 Dec (1) WTL (GDE, HLF, Frank Ward); 16 Feb (3) Ripshin Lake (RLK). Common Merganser: 31 Dec (3) SHL (GDE, RL), only report. Ruddy Duck: 20-29 Dec (1-2) WatR (GDE, HLF). Black Vulture: 31 Dec (8) SHL (GDE, RL). Sharp-shinned Hawk: 7 reports, about average (LHTOS). Cooper's Hawk: 6 sightings, about average (LHTOS). Red-shouldered Hawk: 1-3 thru period along WatR (RLK *et al.*). Common Snipe: fewer than normal reports ELI area (LHTOS). American Woodcock: 4 Feb (1) GSMNP near Chilhowee Lake, Blount Co. (CPN *et al.*).

Gull-Shrike: Ring-billed Gull: 2-8 on WibL, WTL thru period (LHTOS). Herring Gull: 10 Dec (1) WTL (DH), only report. Great Horned Owl: 3-5 pairs near SHL (RL *et al.*). RED-COCKADED WOODPECKER: 4 Feb (5 birds in 2 groups) GSMNP, Blount Co. (KTOS, CPN). Eastern Phoebe: only 3-4 reports in ELI area (LHTOS). Horned Lark: 14 Dec (8), 3 Jan (50), 21 Jan (6) SMV ELI (RLK, *et al.*). Common Raven: up to 5 regular on RNM, Iron Mtn. (LHTOS). Hermit Thrush: 6-8 reports ELI area (LHTOS). Brown Thrasher: 4-5 wintered ELI area (LHTOS). Loggerhead Shrike: 15 Dec (1) SMV, 26 Jan (1) ELI (GDE, HLF), only reports.

Warbler-Grosbeak: ORANGE-CROWNED WARBLER: 13 Jan - end of period (1) ELI, same location as bird last winter (Barbara Walsh *et al.*). Fox Sparrow: 16 Feb (1) RNM (RLK), only report. White-crowned Sparrow: only report from SHL area (RL *et al.*). Common Grackle: 16 Feb (1) RNM, 5500 ft. elev. (RLK). Purple Finch: low numbers thru period, ELI area (LHTOS). House Finch: noticeable increase in numbers, up to 50 at several ELI feeders (LHTOS). Pine Siskin: only 1 Dec report, then very numerous after 1 Jan at ELI (LHTOS). Evening Grosbeak: pattern similar to Pine Siskin but smaller flocks (6-15) at ELI (LHTOS); abundant at Gatlinburg (*fide* JBO).

Locations: ELI—Elizabethton area; GSMNP—Great Smoky Mtns. Nat. Park; RNM—Roan Mtn.; SHL—South Holston Lake; SMV—Siam Valley near ELI; WTL—Watauga Lake; WatR—Watauga River; WibL—Wilbur Lake.

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TELEVISION TOWER CASUALTIES, NASHVILLE, TENNESSEE 1976-1983

KATHERINE A. GOODPASTURE

Casualties have been monitored at two television towers, WSMV (formerly WSM), and WKRN (formerly WNGE), at Nashville, Davidson County, Tennessee, each fall since 1960. The most recently published report, in the March 1976 *Migrant* (47: 8-10), reported on casualties during the fall of 1975. Members of the Tennessee Ornithological Society have continued to monitor the towers during the 1976-1983 fall migrations. This paper presents a summary of birds collected those years.

Towers were routinely visited each morning from 1 September through 31 October. Through the years, efforts at WSM have not diminished; collections at WNGE were irregular in 1982 and 1983. The date of collection of each bird is in the author's files.

RESULTS

Table 1 presents the 1976-1983 total casualties broken down by tower, year, and by species.Table 2 shows the number of casualties collected at each tower each year as well as the number of species found. Table 3 presents the same information for the 8 years preceding 1976, i.e., during 1968-1975. The species list numbers 73 and 29 species of wood warblers (Parulinae) make up most of the casualties. Of the 1988 birds identified, 1582 (79.5%) are warblers. The Ovenbird (*Seiurus aurocapillus*) at 430 (21.6%) was the most abundant species, followed by the Tennessee Warbler (*Vermivora peregrina*), 395, Bay-breasted Warbler (*Dendroica castanea*), 190, and Magnolia Warbler (*Dendroica magnolia*), 173. Among the notable records was the single Orchard Oriole (*Icterus spurius*), collected on 25 September 1979, much later than their average departure date in mid-August (Parmer, 1975, Birds of the Nashville Area).

DISCUSSION

The total number of birds collected for the 8-year period 1968-1975 was 13,911, and for the period 1976-1983 was 2,126, a decrease of 84 percent. I do not intend to say that the avian population has decreased; only that the number of casualties collected at 2 Nashville TV towers decreased. There was a dip in 1973-74 and in 1980-83. Many factors may influence the number of birds collected, and I will briefly mention 3 possible factors which may have influenced the number of birds collected in recent years.

TABLE 1. Total birds collected, 1976-1983, broken down by tower, year, and by species.

	1976		1977		1978		1979	
	WSM	WNGE	WSM	WNGE	WSM	WNGE	WSM	WNGE
Green-back. Heron							1	
Virginia Rail	1				1			
Sora						1		
American Coot	1						1	
Mourning Dove	1						1	
Cuckoo, Yellow-b.							1	
Black-billed	1	1	2			1	4	
Yel-bel. Sapsucker							1	
Northern Flicker	1		2				1	
Eastern Wood-Pewee					1	1		
Yel-b. Flycatcher	1							
Brown Creeper							1	
Wren, Carolina								
House						1		
Winter								
Sedge					1			
Marsh					3	1		
Kinglet, Gold.-cr.		1						
Ruby-crowned	2	1	2					
Veery		1			1	1		
Thrush, Gray-ch.	1					1		
Swainson's	4	2				3		
Wood	4	1			3	4		1
American Robin								
Gray Catbird	9	6		2	10	25	2	2
Brown Thrasher							1	
Vireo, White-eyed				1	1	1	1	1
Solitary	1						1	1
Yellow-throated							1	1
Philadelphia	6					1	1	1
Red-eyed	27	2	5	1	16	7	15	6
Warbler, Blue-w.								
Golden-winged				1		2		
Tennessee	56	5	26	8	32	31	158	12
Orange-crowned								
Nashville				1	2		2	1
Northern Parula		1						
Warbler, Yellow		1	1					
Chestnut-sided	13			1	2	4	1	3
Magnolia	37	18	2	5	7	41	14	6
Cape May			1			1		
Yellow-rumped			1				1	
Blk-thr. Green	2	1	5	6	6	1	8	1
Blackburnian	1		2	1	2	6	7	
Yellow-throated	1							
Palm	3	3	2	1	6	2	2	
Bay-breasted	37	18	18	10	6	9	45	6
Cerulean		1					1	
Black-and-White	11	1	3		17	8	8	1
American Redstart	2	3			9	17	6	5
Warbler, Prothon.					2			
Worm-eating					2			
Ovenbird	49	14	10		129	114	46	18
Waterthrush, No.	2		3		2	2	1	
Warbler, Kentucky		1				1		
Mourning		1						
Com. Yellowthroat	3	1	2	1	15	28	4	
Warbler, Wilson's								
Canada	1					1		
Yellow-br. Chat	2	3	1		1	1	1	
Scarlet Tanager		2			1	1		
Rose-br. Grosbeak	4	2	1	1	1		1	
Indigo Bunting	1	1				1	3	
Rufous-s. Towhee	1							
Sparrow, Chipping								
Field		1		1				
Savannah	1							
Grasshopper						1		
Fox			1					
Swamp	1			1				
White-throated						7		12
Oriole, Orchard							1	
Northern						1		
Unidentified	4	21	3	6	60		9	
TOTAL	292	114	93	48	339	328	352	78

TABLE 1. continued.

1980		1981		1982		1983		
WSM	WNGE	WSM	WNGE	WSM	WNGE	WSM	WNGE	TOTAL
								1
								2
		1						2
								2
1								3
				1		1		3
1		1		2				13
								1
1		1		1		1		8
								2
								1
				1		4		6
						1		1
						1		2
	2							2
				1		1		3
4						3		11
		1		1		4		7
		1		4		2		12
								3
								2
					1			10
								13
						1		10
3		2				5	1	67
1						1		3
2						1		8
1				1		2		7
			1					3
		2	1	1		2		15
2		6	1	4	1	6		99
		1	1			1		3
								3
19	3	11	2	17		14	1	395
		2						2
	1	2	4					13
								1
				1		1		4
	2	2	1	1		1		31
5	6	2	3	16	1	8	2	173
								2
4	3	12		4				25
2	2	2	1	1	2	1		41
		1				3		23
								1
1		1		4		1		26
15	1	3	2	10		9	1	190
								2
2		1	1	7		1	2	63
	2		1	2			1	48
								2
								2
13	4	3	1	10		16	3	430
2	1		1			2		16
		2				1		5
								1
1				2	1	2		60
				1				1
		1						3
	1	1			1	3	1	16
								4
	2	2						14
1	1	2	1	2		3	1	17
		1						2
						1		1
		1						3
	1			1				3
								1
								1
4	1		1					8
	3	1	8			2	2	35
								1
	1				1			3
9		15		11				138
94	37	84	31	107	8	106	15	2126

TABLE 2. Number of individual birds and number of species collected at WSM and WNGE towers, 1976-1983.

		1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
WSM	Birds	292	93	339	352	94	84	107	106	1467
	Species	34	20	27	34	21	29	25	34	
WNGE	Birds	114	48	328	78	37	31	8	15	659
	Species	27	16	35	17	18	17	7	10	
TOTAL	Birds	406	141	667	430	131	115	115	121	2126
	Species	43	27	41	36	30	33	28	35	

TABLE 3. Number of individual birds and number of species collected at WSM and WNGE towers, 1968-1975.*

		1968	1969	1970	1971	1972	1973	1974	1975	TOTAL
WSM	Birds	5537	1602	3683	990	357	56	67	435	12727
	Species	73	51	66	52	49	22	20	45	
WNGE	Birds	197	307	104	135	199	109	55	78	1184
	Species	39	51	21	24	40	35	27	32	
TOTAL	Birds	5738	1909	3787	1125	556	165	122	513	13911
	Species	78	70	67	55	58	42	35	53	

*Information from *Migrant*, Vol. 40-47, 1969-1976.

First, tower kills are broadly related to vagaries of the weather. A shift in wind direction might shift a migratory flight into or away from a vertical hazard. Rain or fog might depress the height of a flight low enough for it to collide with a TV tower. Especially hazardous to night-flying birds is a change in the weather during the night. Conversely, periods of mild weather allow birds flying at night to fly above unnatural, high-rising structures.

Second, a general decline in the overall population of nocturnal migrants certainly might be reflected in the count of casualties found at the base of a TV tower. Although declines in numbers of several species have been demonstrated from Christmas Bird Count data, Breeding Bird Survey data, etc., no widespread decline of the magnitude shown here has yet been demonstrated.

Third, nocturnal predators foraging on fallen birds have apparently become more of a problem in the last 3 or 4 years. A fox den was observed on the WSM tower grounds for at least 2 years, and WSM maintenance personnel observed a fox collect dead birds into a pile before carrying them away. Attempts by Tennessee Wildlife Resources Agency personnel to trap these foxes were unsuccessful. Cats also take a toll of birds, and 2 or 3 have been observed from time to time at WSM, and as many as 7 at WNGE. Feathers of large owls and cast pellets composed of feathers have been observed at WSM, and Common Crows (*Corvus brachyrhynchos*) have been observed flying away with small birds.

ACKNOWLEDGEMENTS

This long-term study could not have been carried out without the help of the following persons who monitored the towers. They share the authorship of this report: Frances Abernathy, Jan Alexander, Sue Bell, Sandy Bivens, Milbrey Dugger, Clara Fentress, Bill Finch, Joe McLaughlin, Henry Parmer, Marg Patrick, Oscar Patrick, Virginia Price, Ellen Stringer, Ann Tarbell, David Vogt and Miriam Weinstein. I am grateful to Margaret Mann for typing this paper, to David Vogt for help in preparing the tables, and to Ann Tarbell, Ann Houk and Sandy Bivens for helping check the tables.

3407 Hopkins Lane, Nashville, Tennessee 37215. Accepted 10 February, 1985.

BOOK REVIEW

COMMON BIRD SONGS. SONGS OF EASTERN BIRDS. SONGS OF WESTERN BIRDS. — by Donald J. Borror. 1984. Dover Publications, Inc., Mineola, NY. 50 minute cassettes, each with illustrated 64 page booklet. $7.95 each. — These are reissues of bird song recordings originally produced as LP records by Dover between 1967 and 1971. Each 50 minute cassette has songs, and in some cases, calls, of 60 species on it. The only duplication between the sets is for a few species in which the song differs markedly between eastern and western populations (e.g. Solitary Vireo and Rufous-sided Towhee). Species are arranged on the tapes into groups with similar songs. Several song variations are given for many species. The quality of the recordings is high, and there is little background noise. The birds on the tapes are primarily passerines, but goatsuckers and most of the eastern woodpeckers are included, as are a few species from other orders. There are no owl calls on the tapes. The booklets include a brief general discussion of bird vocalizations, black-and-white illustrations of all the species represented, thorough descriptions of the vocalizations on the tapes, and many sonagrams. All of the species on the Common Bird Songs and Songs of Eastern Birds tapes occur in Tennessee, although some of them do not often vocalize while in the state. Recommended. — CHARLES P. NICHOLSON.

THE 1984 SPRING FIELD DAYS

RICHARD L. KNIGHT

This year 220 species were reported from 11 counts across Tennessee. The species total has been exceeded only once; 225 species were recorded last year. Nashville lead all counts with a staggering 184 species. Most counts experienced stormy or rainy weather. Several unusual species were reported. Among the most notable are Merlin, Peregrine Falcon, King Rail, Purple Gallinule, Piping Plover, Baird's Sandpiper, Long-billed Dowitcher, Laughing Gull, and Yellow-bellied Flycatcher. For the most part, these and other unusual species were reported without documentation, although some compilers provided the names of the observers.

INFORMATION ON THE COUNTS

MEMPHIS — 29 April; temp. 69-80°F; stormy, wind S, 10-30 mph; Ben B. Coffey, Jr. (compiler — 672 N. Belvedere, Memphis, TN 38107); group leaders — William Bean, Lula Coffey, Helen Dinkelspiel, Rob Peeples, Martha Waldron, and Jeff Wilson.

MONTGOMERY COUNTY — 5-6 May; temp. 70's°F; clear. Joe Allen, Gary Baker, Mike Dinsmore, Floyd Ford, Annie Heilman, Nancy Hughes, Ellen Hutchison, Marilyn Lucy, Bill & Gloria Milliken, John Quick (compiler — Rt. 1, Box 114B, Cunningham, TN 37052), Ellen Walker.

LAWRENCEBURG — 28-29 April; temp. 70-86°F; 28th — stormy to partly cloudy; 29th — partly cloudy with scattered afternoon showers; 10 observers in 3 parties. Andy Augustin, Michael Beuerlein, Helen & Lloyd M. & Lloyd W. Clayton, Lee Mann, Damien J. Simbeck (compiler — Rt. 2, Box 3A, Loretto, TN 38469), Dawn & Don Simbeck, Wylie Willis.

COLUMBIA — 28-29 April; temp. 60-80°F; partly cloudy with occasional showers; wind SE, 8-15 mph. Kenneth Anderson, Dot & Ed Byassee, Dan & Gaither Gray, Mary Ann Guschke, Bill Jernigan, Sam Kuykendall, Allen Lay, Ann & Bedford Lochridge, Henry & Mary Lyles, Cleo & George Mayfield, Mark Mayfield (compiler), Allen & Diane Pressnell, Kari Seal. Also reported: *Empidonax* sp. (2).

NASHVILLE — 5-6 May; about 55 observers, 9 parties plus yard watchers. Also reported: *Empidonax* sp. (5).

MURFREESBORO — 5-6 May; temp. 60-70°F; severe thunderstorms with extensive flooding. Lou Erwin, C. E. Greever, Anne L. Hettish (compiler — 1018 Lawndale Dr., Murfreesboro, TN 37130), Bob Hettish, Wilma Hunter, David McCarroll, Don & Linda McGee, Larry McFarlin, Gene & Ruth Odom, John Patten, Terry Witt.

LEBANON — 5-6 May; temp. 50-70°F; cloudy and rainy. Earlene & Vernon C. Berry, Melissa Cannon, Fred Detlefsen, Ruth V. McMillan (compiler — Rt. 2, Box 141, Lascassas, TN 37085), Margaret P. Partee, Ray Pope, Alice Savage.

THE 1984 SPRING FIELD DAYS

	MEMP	MONT	LAWR	COLU	NASH	MURF	LEBA	HIGH	CHAT	KNOX	GREE	ELIZ
Common Loon			1		8				15			1
Pied-billed Grebe	4			15	5		3		1			1
Double-cr. Cormorant	165				2		15		3	10		
American Bittern							1		1			
Great Blue Heron	3	2		2	11		6	3	20	1		
Great Egret			1		1					1		
Snowy Egret					1							
Little Blue Heron	16		1			1						
Cattle Egret	62		1	22	4	1	6					
Green-backed Heron	4	2	13	14	37	10	8		8	13	6	10
Black-cr. Night-Heron					52	5						
Yellow-cr. Night-Heron	10				6	3	1		5			1
Canada Goose			11	32	265	30	79	36	18	4	27	3
Wood Duck	25	2	8	10	29	3	6	22	17	11	21	31
American Black Duck					1							
Mallard	13		6	8	40	5	13		13	8	6	28
Blue-winged Teal	41		6	22	33	7	2		40		10	7
Northern Shoveler	12		2						4			
Gadwall	2								4			
American Wigeon		1										2
Greater Scaup									3			
Lesser Scaup					2							
Hooded Merganser					1					1		
Red-breasted Merganser					6							4
Ruddy Duck	9								1			
Black Vulture		1	1		47	6	11	3	5		5	2
Turkey Vulture		4	52		34	5	6	8	51	5	14	43
Osprey			1		5	3	2		6	2	1	3
Mississippi Kite	7											
Northern Harrier					1							1
Sharp-shinned Hawk					2		1		4		2	2
Cooper's Hawk					2			2			2	
Red-shouldered Hawk	3	3			25		1	2	1	1		
Broad-winged Hawk	6		2		3			1	11	7	1	3
Red-tailed Hawk	6	9	5		19	3	1	3	21	5	2	2
American Kestrel		5	3		18	26	11			5	2	9
Merlin					1							
Peregrine Falcon					1							1
Ruffed Grouse										1		12
Wild Turkey	4			2								
Northern Bobwhite	18	9	22	60	71	31	14	6	10	36	12	18
King Rail					1							
Virginia Rail				8								
Sora	1			27	11	1			2			
Purple Gallinule					2							
Comon Moorhen				1								
American Coot				43	26		1		95			
Lesser Golden-Plover	7											
Semipalmated Plover	2			1	3				1			
Piping Plover				1								
Killdeer	27	9	21	10	34	24	6	9	25	42	20	33
Greater Yellowlegs	3		12	1	19	1			13			
Lesser Yellowlegs	42			6	11	28			20		2	1
Solitary Sandpiper	31		8	7	44	14	1	1	20	11	9	30
Willet					80							
Spotted Sandpiper	7	2	2	9	20		2	1	6	9		7
Semipalmated Sandpiper	12				4							
Western Sandpiper	1				4							
Least Sandpiper	112		2	10	33	5			2			3
Baird's Sandpiper					4							
Pectoral Sandpiper	72		1	3	39	21			12			1
Dunlin					6							
Stilt Sandpiper	6											
Short-billed Dowitcher	1											
Long-billed Dowitcher									11			
Common Snipe	5		6		6			1	53	2		9
American Woodcock					3				1			5
Wilson's Phalarope					1							
Laughing Gull									1			
Ring-billed Gull	74				28		20		77	3		25
Herring Gull								1	1		5	

	MEMP	MONT	LAWR	COLU	NASH	MURF	LEBA	HIGH	CHAT	KNOX	GREE	ELIZ
Caspian Tern					5				1			
Forster's Tern				13			1		3			
Ring-billed Gull	74				28		20		77	3		25
Herring Gull								1	1		5	
Caspian Tern					5				1			
Forster's Tern				13			1		3			
Rock Dove	1	57	10	16	65	60	164	5	117	140	19	103
Mourning Dove	42	37	105	91	263	180	32	46	81	340	76	228
Black-billed Cuckoo					2	1	1					
Yellow-billed Cuckoo		1		4	9	9	5	1	2	6		1
Common Barn-Owl		1					3					2
Eastern Screech-Owl				2	5		9		1	16		1
Great Horned Owl			1	10	5	1	7			8		
Barred Owl	1	2	3	8	19	2	16	1	1	6		
Common Nighthawk		17	2	1	20	30	11	5	9	3	5	14
Chuck-wills-widow		2	2	19	2	8	22	4	3	20	1	3
Whip-poor-will		2	4	13	2	8	15	2		1		5
Chimney Swift	46	97	56	59	552	175	79	50	129	445	198	478
Ruby-thr. Hummingbird	24	9	5	7	44	11	6	4	8	14		9
Belted Kingfisher	8	2	7	9	17	13	1	4	7	8	3	12
Red-headed Woodpecker	34	5	1	18	33		2	9	1	1		1
Red-bellied Woodpecker	29	17	22	22	80	24	16	14	13	60	21	27
Yellow-bel. Sapsucker				1	1	1	1					
Downy Woodpecker	11	2	11	25	67	6	5	8	13	39	14	34
Hairy Woodpecker	2	16	1		15	2	3	3	1	6		8
Northern Flicker	11	6	5	9	33	21	6	15	14	55	21	55
Pileated Woodpecker	8	7	10	16	41	1	4	4	10	29	10	22
Olive-sided Flycatcher					1							
Eastern Wood-Pewee	21	10	8	14	98	10	6	6	2	5	7	2
Yellow-bel. Flycatcher					1		1					
Acadian Flycatcher	18	1	4	11	21			1	5	3		3
Willow Flycatcher					2							
Least Flycatcher		3			30							1
Eastern Phoebe	3	5	3	12	44	4	6	11	5	17	9	25
Great Cr. Flycatcher	31	11	12	13	41	9	15	4	6	22	7	20
Eastern Kingbird	27	5	11	36	134	72	25	13	25	48	19	17
Horned Lark	6		12	8	2						1	
Purple Martin	13	28	43	49	91	146	136	63	515	105	11	165
Tree Swallow	205			15	259	10	23	2	109	9	9	4
N. Rough-wing. Swallow	22	12	24	33	1507	7	99	2	199	42	42	148
Bank Swallow					128	200			4	2		
Cliff Swallow		15	6	2	3024	150			315	1		
Barn Swallow	94	75	108	28	415	450	200	67	344	234	78	287
Blue Jay	36	49	58	76	371	131	49	48	317	697	113	263
American Crow	14	31	68	50	173	350	56	27	121	221	92	223
Fish Crow	7											
Common Raven												4
Carolina Chickadee	61	29	14	37	161	51	9	25	32	207	36	93
Tufted Titmouse	86	34	40	41	117	42	25	2	37	97	32	69
Red-breasted Nuthatch				2	1				2	7	1	9
White-br. Nuthatch		9	5	16	31	1	1	12	7	17	3	17
Brown-headed Nuthatch									2			
Carolina Wren	72	20	10	27	92	12	6	17	21	161	61	93
Bewick's Wren				2		3	3					
House Wren		5		2	13	4	5	1	2	14	13	9
Winter Wren			1									5
Sedge Wren					1				1	1		1
Marsh Wren					3				2			
Golden-crowned Kinglet		2			2							
Ruby-crowned Kinglet			2	3	9	4	3	2	6	45	1	22
Blue-gray Gnatcatcher	101	14	27	54	81	10	5	10	65	89	21	50
Eastern Bluebird	10	19	43	48	211	27	131	27	41	41	41	67
Veery	5		1	5	21	5		1		9		
Gray-cheeked Thrush	23	2		2	23	1	4		3	1	3	
Swainson's Thrush	104	31	1	7	115	22	5	1	6	46	1	3
Hermit Thrush			1	2		3			1	1		
Wood Thrush	51	9	11	28	70	18	9	5	17	89	7	73
American Robin	91	103	65	139	265	386	60	58	112	470	169	487
Gray Catbird	13	17	9	19	66	35	11	11	48	54	13	41
Northern Mockingbird	21	21	44	37	112	60	57	42	44	158	53	83
Brown Thrasher	14	17	32	38	60	59	22	25	33	67	32	33
Water Pipit												2
Cedar Waxwing	102	9	25	75	110	315			16	15	6	43
Loggerhead Shrike	3	1	20	5	21	4	3		2	1	1	1
European Starling	198	186	60	250	601	1000	275	61	271	522	520	738
White-eyed Vireo	71	16	23	58	99	20	4	9	16	69	17	32

	MEMP	MONT	LAWR	COLU	NASH	MURF	LEBA	HIGH	CHAT	KNOX	GREE	ELIZ
Solitary Vireo		1			3	2	1		2	2		9
Yellow-throated Vireo	14	10	3	14	13	2	4	3	6	10	1	18
Warbling Vireo	6	2		4	19		3					
Philadelphia Vireo		2			3		3					
Red-eyed Vireo	46	15	12	22	76	34	11	10	43	143	7	66
Blue-winged Warbler		2	4	22	20	1	1	3	6	9		4
Golden-winged Warbler	1	1	2		7		1			5		
Tennessee Warbler	94	36	2	67	149	23	21	2	38	30		3
Orange-crowned Warbler							1			1		2
Nashville Warbler	3	11		12	25	6	1		4	25		1
Northern Parula	76		1	13	18				1	9	1	28
Yellow Warbler	4	12	7	64	107	31	20	6	9	23	11	38
Chestnut-sided Warbler	3	2		10	23	32	11		4	19		20
Magnolia Warbler		3		1	23	29	8	1	3	4		
Yellow-rumped Warbler	9	25	15	95	274	83	13	12	101	161	40	32
Blk.-thr. Grn. Warbler	7	16	1	4	44	21	16	2	4	30	3	19
Blackburnian Warbler	2	3	1	6	13	11	28	3	3	8		2
Yellow-thr. Warbler	1	2	2	11	19			2	13	2		13
Pine Warbler	3		5	6	7	5		1	10	3	5	4
Prairie Warbler		19	3	29	36	23	7	11	15	17		6
Palm Warbler	8	19	15	42	280	26	6	2	57	14		3
Bay-breasted Warbler		12	2	6	39	19	5		8	18		
Blackpoll Warbler	9	15	19	24	108	23	7	8	42	45	2	4
Cerulean Warbler	17		4	20	8	1	1		14	9		1
Black-&-white Warbler	6	6	4	17	41	21	3	4	13	26	3	55
American Redstart	21	2	1	10	29	15	2		35	7	1	2
Prothonotary Warbler	35	3	1	27	52	1	10		3	8	3	1
Worm-eating Warbler	5		2	12	15				2	13		13
Swainson's Warbler	11		1				1		1			
Ovenbird	5	2	7	4	20	4	1	2	5	34		110
Northern Waterthrush	3		1	3	9	6	5	2	4	2	1	2
Louisiana Waterthrush	10	1	5	15	18	2	4		5	4		12
Kentucky Warbler	43	9	3	27	55	1	9	2	4	13		9
Connecticut Warbler							1					
Mourning Warbler					1		1					
Common Yellowthroat	48	13	21	64	203	38	22	12	11	102	44	22
Hooded Warbler	19	2	1	15	24	1	1	1	4	22	1	54
Wilson's Warbler					5		1			2		
Canada Warbler				2	3	1	3			2		3
Yellow-breasted Chat	6	7	10	33	48	5	11	10	14	26	20	15
Summer Tanager	67	12	12	14	35	11	8	8	12	14	2	1
Scarlet Tanager	6	3	3	18	60	14	3	10	21	52	2	22
Northern Cardinal	127	114	81	94	327	450	117	65	122	493	126	220
Rose-breasted Grosbeak	14	57	4	41	109	38	9	10	35	90	7	32
Blue Grosbeak	4		5	1	13	7	5	8	5	12	2	3
Indigo Bunting	184	63	126	75	452	93	106	41	89	112	36	35
Painted Bunting	1											
Dickcissel	27	35		10	5	2				1		
Rufous-sided Towhee	22	33	42	37	158	46	15	27	45	165	33	109
Chipping Sparrow	6	9	23	23	69	11	6	16	31	41	21	38
Field Sparrow	5	15	24	86	102	21	27	33	43	166	93	33
Vesper Sparrow									2	1		
Savannah Sparrow	9		1	1	43				19	3		14
Grasshopper Sparrow				5	8		3		14	5	4	10
Fox Sparrow								1				
Song Sparrow	4	5	2	5	41	4		6	51	312	97	257
Lincoln's Sparrow	4			1	11							
Swamp Sparrow	6		5	21	38		3		1	7		23
White-throated Sparrow	86	35	10	96	125	40	6	39	81	257	99	103
White-crowned Sparrow	3	5	15	26	19	7	4	6		8	14	12
Dark-eyed Junco							4	1			1	12
Bobolink		6	93	54	41	300		12	30	29		
Red-winged Blackbird	284	69	115	139	753	2000	60	51	96	292	88	313
Eastern Meadowlark	65	52	99	105	227	2000	52	86	118	190	114	179
Rusty Blackbird				1			2		6			
Common Grackle	136	97	166	150	359	706	231	93	138	523	324	910
Brown-headed Cowbird	160	23	45	79	254	32	19	66	19	101	40	105
Orchard Oriole	28	5	5	22	56	12	13	15	11	22	13	9
Northern Oriole	33	5	11	11	30	4	11	1	3	12	4	11
Purple Finch		18	3	9	32	6	3	27	13	73	9	121
House Finch					2		1		3	32	10	15
Pine Siskin	26	7	12	23	42	7		14	150	198	16	26
American Goldfinch	165	53	71	199	208	33	63	134	271	376	133	673
Evening Grosbeak	3		144	19	17	3			40	3	9	106
House Sparrow	com.	67	140	22	78	100	50	70	78	200	53	131
TOTAL SPECIES	133	112	126	142	184	129	139	106	157	142	102	143

HIGHLAND RIM — 27-28 April; mild, rainy. Marjory Harper, Ruth Luckadoo, Nicky & Phillip Medley, Anna Parker, Cloe & Howell Peebles, Erma Rogers, Violette Wakefield, Lillie Willard (compiler — 100 N. Washington, 2D, Tullahoma, TN 37388), Evelyn Wilson, Wanda Winnett, Harry & Jean Yeatman, Grady & Willa York. American Tree Sparrow (2) deleted.

CHATTANOOGA — 28-29 April; temp. 57-77°F; light to heavy rain, some clearing. Betty & Lloyd Anderson, Delbert Blum, Katherine Boyles, Barbara Claiborne, Kathy Davidson, Angela Davis, Jack & Linda Doyle, Ken & Lil Dubke, Gertrude Fleming, Paul Harris, Daniel Jacobson, Al Jenkins, Johnny T. Parks (compiler — 1610 E. 17th St., Chattanooga, TN 37404), Janet Phillips, Gene & Helen Ryther, Billy & Mary Shewall, Jo Stone.

KNOXVILLE — 29 April; temp. 52-68°F; overcast with showers in afternoon; 35 observers; Paul Hartigan (compiler). Also reported - egret sp. (2).

GREENEVILLE — 29 April; 16 observers in 7 parties; Ben Britton (compiler — Rt. 1, Box 348, Greeneville, TN 37743).

ELIZABETHTON — 28 April; temp. 56-75°F; cloudy to partly cloudy; 27 observers in 9 parties; Glen Eller (compiler — Rt. 9, Box 1340, Grandview Terrace, Elizabethton, TN 37643).

BOOK REVIEW

FIELD GUIDE TO THE BIRDS OF NORTH AMERICA — edited by a committee of the National Geographic Society, 1983. National Geographic Society, Washington, D.C. 464 pp., 220 color plates, 533 range maps, paperback. Available from the NGS, Dept. 100, Washington, D.C. 20036, for $13.95 + $3 p&h. — This all-new field guide covers North American birds in one volume. Unlike previous guides, which have been written by 1 or 2 authors and illustrated by 1 artist, this book was written by a large committee and illustrated by 13 artists. The book includes all bird species breeding north of Mexico, regularly occurring vagrants, and many accidentals and escaped species for a total of about 800 species. The layout is similar to that of the Robbins guide — text and range maps on one page, and illustrations on the facing page. An average of 4 species are covered in each 2-page spread. Bird names consistent with the 1983 AOU checklist are used, and their arrangement approximates the new checklist.

As might be expected with so many illustrators, the plates range from poor to excellent. The birds in some are poorly proportioned — the coots and gallinules have tiny heads and huge feet. On the whole, the plates are very good and more artistic than in other guides. I especially like those of the Pileated and Ivory-billed Woodpeckers, and the Tennessee Warbler plate, which shows breeding plumaged birds among dogwood flowers and fall plumaged birds among dogwood fruits. The guide illustrates more different plumages than other guides and shows sexual, seasonal and age differences, and in many cases geographic variation. I do have some criticisms of the plates. With some species, the number of individuals illustrated is a bit overwhelming. Some of the sex and age differences which are illustrated are almost impossible to detect in the field. The inclusion of illustrations of different races is helpful in showing the range of variation, but it takes some searching in the text to determine which race should occur in a particular area. In some cases, such as the Horned Lark, some of the races shown have relatively restricted breeding ranges, while some widespread races are not illustrated. And, as in some illustrations of sex and age differences, some of the differences in the races illustrated are very subtle and probably not discernable in the field. Size differences among those species on the same page are often not shown well.

The range maps, all about 2.5 cm square, are tiny considering the amount of empty space around them. They include state boundaries, and different colors are used to represent breeding, wintering, and year-round ranges. The yellow used for breeding range is hard to see on some maps, and there is no attempt to show migration routes. A quick check showed some inaccuracies in the Tennessee range of some species. Several species of waterfowl are more widespread in Tennessee than the maps indicate, and the maps show some species which breed only on the Cumberland Plateau and in the Blue Ridge as also occurring in the ridge and valley. Part of this latter problem may be attributable to the scale of the maps. The Savannah Sparrow and the Bobolink are incorrectly shown as regularly breeding in upper East Tennessee, and the Brown-headed Nuthatch is not shown to occur in the state, although breeding records have been in print for several years. The breeding range of Wayne's Black-throated Green Warbler, a disjunct population on the coastal plain of Virginia and the Carolinas, is not shown.

The species accounts include the standard information, and often include identification tips not easily available from other sources. Some accounts are quite long and wordy, and thus hard to digest in the field. The information included, however, is generally very helpful.

At 12.5x20x2.5 cm thick and 600+ grams, this is a large, heavy field guide, and will probably not fit in your pants pocket. I would rather have seen a more compact guide, without many of the neo-tropical and Eurasian vagrants. Although I have several criticisms of the "Geographic" guide, I highly recommend it, especially to birders who have advanced past the beginner stage. The color reproduction is excellent, and the price reasonable. It is only available in paperback, but the binding seems strong, and the covers are quite tough. It is not sold in book stores and must be ordered from the National Geographic Society or the American Birding Association. The guide is also available from NGS as part of a package called "The Wonder of Birds", which also includes a very attractive coffee table book, a poster showing bird migration in the Americas and giving introductory birding tips, and a 4-record "Guide to Bird Sounds" which is keyed to the field guide. "The Wonder of Birds" costs $34.95. — CHARLES P. NICHOLSON.

ROUND TABLE NOTES

FIRST SIGHT RECORD OF "GRAY-HEADED" JUNCO IN TENNESSEE — At about 0800 on 24 May 1982, my wife Elizabeth and I briefly observed a small, junco-like bird in our yard at Williamsport, Maury County, Tennessee. The bird flashed white outer tail feathers as it flew away, and realizing this was well past the departure date for wintering Dark-eyed (Slate-colored) Juncos (*Junco hyemalis*), I wondered if I had seen a Rufous-sided Towhee (*Pipilo erythryopthalmus*). About an hour later, we saw what appeared to be the same bird at a feeding station, 3-4 m from our window. Using 7 x 35 binoculars, we observed a bird of junco size and shape, which was slate-colored over most of its body. A bright rust or orange-rust triangular patch covered much of its back, and the bird's belly was a light gray which blended into the slate gray of the rest of the body. The bird had a flesh-colored bill, a dark eye with no eye ring, and blackish lores. After consulting Robbins' *et al*. Birds of North America, we decided the bird was a "Gray-headed" Junco, formerly considered a distinct species, but recently (AOU Checklist of North American Birds, 6th Ed., 1983) combined with the Dark-eyed Junco.

The "Gray-headed" Junco stayed in our yard throughout the day, and appeared to follow a regular pattern of feeding on cracked corn, then bathing and preening. It was last observed about 1930 on 24 May. The bird was also seen by others, including Anne and Bedford Lochridge of Columbia, and Dot and Paul Crawford of Gallatin. The normal range of the "Gray-headed" Junco is in the Rocky Mountains from Idaho, Utah and Wyoming into northern Mexico, although there are casual records from Minnesota, Illinois, Arkansas, and Louisiana (AOU *op. cit.*). This is the first record of this distinctively marked subspecies in Tennessee.

KENNETH G. ANDERSON, Williamsport, TN 38487. Accepted 12 February 1985.

A SUMMER RECORD OF AMERICAN COOT IN THE GREAT SMOKY MOUNTAINS NATIONAL PARK — On 12 June 1984, I observed an adult American Coot (*Fulica americana*) in Cades Cove, Great Smoky Mountains National Park, Blount County, Tennessee. The coot was first seen as it walked out from under the Hyatt Lane bridge over Abrams Creek. The coot ignored me and the 19 other observers present, and calmly walked eastward along the creek. The bird was observed and photographed for about 10 minutes. When it was flushed, it did not appear to be injured.

This is apparently the first summer record of a coot in the park. Stupka, in Notes on the Birds of Great Smoky Mountains National Park (Univ. Tenn. Press, 1963), lists 5 coot records, all in November. A check with park personnel revealed that there were no previous summer coot records on file at park headquarters.

GEORGANN SCHMALZ, Fernbank Science Center, 156 Heaton Park Drive, N.E., Atlanta, GA 30307. Accepted 20 November 1984.

BROWN PELICAN AT MEMPHIS, TENNESSEE — Memphis Zoo curators Cliff Ross and I captured an immature Brown Pelican (*Pelecanus occidentalis*) at a church parking lot in southeast Memphis, Shelby County, Tennessee, on 12 April 1983. According to workmen in the area, the pelican had been in the area for several days and had attempted to feed in nearby small ponds. The bird had no obvious injuries, but was weak from apparently not feeding in several days. The pelican consumed approximately 30-8" herring during its first day at the zoo. On 3 May 1983 the pelican was released at Gulfport, Mississippi. Shortly after release, the pelican was recaptured on a yacht, and re-released on an island with a breeding colony of Brown Pelicans. This is the third published record of a Brown Pelican in Tennessee. Previous records are of 1 bird on 17 May 1936 at Mud Lake, Shelby County (*Migrant* 7:38, 1936), and of an adult bird on Norris Lake on 6 June 1937 (*Migrant* 8:87, 1937).

JOHN STOKES, Assistant Curator of Birds, Memphis Zoo and Aquarium, Overton Park, Memphis, TN 38112. Accepted 15 February 1985.

RETURN AND RECOVERY RATES FOR BANDED PURPLE FINCHES — During the winters of 1978-79, 1979-80, and 1980-81, I banded 1,150 Purple Finches (*Carpodacus purpureus*) at my banding station at 2223 Tomassee Drive in south Knoxville, Knox County. The return and recovery rates which I recorded during this banding project are summarized below.

The return rate (i.e., ratio of birds retrapped at a station in a winter following banding to total birds banded) which I experienced was low, though perhaps normal. Of 136 finches banded in 1978-79, one returned in 1979-80 (and again in 1980-81); of 335 finches banded in 1979-80, 3 returned one year thereafter. Thus, the return rate (5:471) was slightly more than one percent, which is approximately the rate recorded by A. R. Laskey (*Migrant*, 45: 73, 1974), who had 50 returns of 4,954 Purple Finches banded. However, Laskey also reported that a subpermittee, B. Walker, banded 131 Purple Finches in early 1972; of these, 13 returned the owing winter, a 10 percent return rate. (*Migrant*, 45: 74, 1974). The Purple Finch obviously exhibits a tendency towards winter site fidelity in Tennessee, though the parameters of the philopatric population vary considerably. At this time the factors which account for this variation are uncertain. Certainly some of this variation may be due to changes in banding activity (i.e., changes in total trapping hours from year to year, etc.), but some is undoubtedly due to changes in the finch population itself, as well as in a number of environmental conditions.

The recovery rate (i.e., ratio of birds recovered at a different site than where banded to total birds banded) which I experienced also approximates the rate reported by Laskey (*Migrant*, 45: 73, 1974). She reported 15 recoveries of 4,954 finches banded (1:330), while 4 of 1,150 (1:287) finches I banded were recovered elsewhere. The specific circumstances of these four recoveries follow: 920-89787 was banded 9 Feb. 80 and was recovered in Hartland, Vermont, on 28 April 82; 920-14953, banded 9 Apr 80, was recovered in Brandon, New York, sometime (exact date unknown) in April, 1983; 950-03125, banded 7 Feb 81, was recovered near Mt. Storm, West Virginia, on 8 Aug 82; and 950-29559 was banded 15 Mar 81 and recovered at Temple, Maine, on 10 Jan 83. Laskey also reported Purple Finches being recovered in Maine, Vermont, and New York, but none of her finches was recovered in West Virginia, which supports the southermost breeding population of the species. This population is consequently the one closest to Tennessee. Although it might be expected that a number of Tennessee-banded Purple Finches originate in West Virginia, that has not yet proved to be the case.

Generally, the return and recovery rates which I recorded in Knoxville parallel those reported by Laskey in Nashville, suggesting that they may be generally applicable to the Tennessee population of Purple Finches. However, the return rate reported by Walker indicates that at least in some years this species returns to its winter sites in greater numbers than Laskey and I found to be the case, warranting further investigation.

STEPHEN J. STEDMAN, Rt. 6, Pinewood Rd., Franklin, TN 37064. Accepted 1 March 1985.

SCISSOR-TAILED FLYCATCHERS IN MEIGS COUNTY, TENNESSEE — On 2 October 1983, at 1000 I located a Scissor-tailed Flycatcher (*Tyrannus forficatus*) in the southern part of Meigs County, on a powerline adjacent to TN 58, about 1.6 km south of the intersection of TN 58 and Brittsville Rd. The bird was first observed on 1 October 1983 by Cary Hambleton, Lee Brown, and Bob Morris, all from Southern College in Collegedale, Tennessee. I found the bird exactly where they had observed it, on the wires in front of 3 houses on the west side of TN 58. I had previously observed several in West Texas. Using binoculars and a ''Discoverer'' spotting scope, I studied the bird for 30 minutes under excellent lighting conditions and at a distance of less than 50 m. It moved about flycatching, resting, and affording every possible view. The bird had all the field marks (coloring, etc.) of an adult bird, except for the tail, which was about equal to the length of its body. The Peterson field guide shows the adult with a tail twice the length of its body. I learned that several other birders tried to find the bird on 3 and 4 October, but, as far as I know, no one got a good look and most failed to find it.

Ten months later on 24 and 25 August 1984, several Chattanooga birders, including Daniel Jacobson, Joe Stone, Paul Dietrich, and Del Blum, viewed a Scissor-tailed Flycatcher at the same location as the October 1983 observation. Although I did not observe this bird, those who did described it as having a very short tail (Figure 1). This bird was observed at the same location on 8 and 15 September 1984. On 30 August 1984, Al Jenkins (pers. comm.) and Gene Ryther saw one about 5 km away, at the edge of the Blythe Ferry Goose Management Area. Ryther (pers. comm.), who also observed the bird along TN 58 on 15 September, noted that the bird seen on 30 August had a slightly longer tail than the bird seen along TN 58.

According to Oberholser (Bird life of Texas, 1973), juvenile Scissor-tailed Flycatchers have a tail shorter in length than either the adult male or adult female birds. A molting adult bird could have a short tail, although most have completed their molt by late summer. Based on the length of the tail, the bird observed in 1983 was presumably an adult, while the 1984 birds could have been either juveniles or molting adult birds. Except for records at Murfreesboro, where Scissor-tailed Flycatchers have recently nested (Bierly, *Migrant* 49:91-93, 1978; Bierly, *Migrant* 53:15-17, 1982), the few previous published records of the species from Middle and East Tennessee have all been in May. The presence of the flycatchers two years in a row is intriguing, and further observations may eventually disclose a small population of breeding Scissor-tailed Flycatchers in East Tennessee.

Paul C. Harris, 4519 Cloverdale Loop, Hixson, TN 37343. Accepted 19 March 1985.

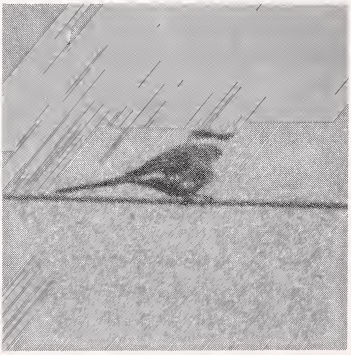
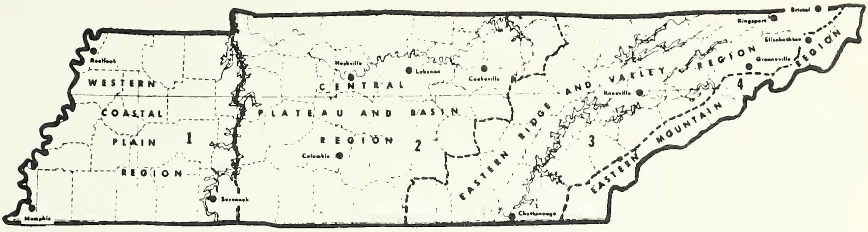


FIGURE 1. Scissor-tailed Flycatcher, Meigs County, Tennessee, 25 August 1984. Photograph by Starr T. Klein.

THE SEASON


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

SPRING: 1 MARCH - 31 MAY 1984

Temperatures during much of the spring were below normal, and rainfall was above normal. Precipitation during March was near normal in most regions, while some regions had an excess of several inches of rain in April and May. Especially heavy rainfall in early May produced heavy flooding, and lake levels in West Tennessee stayed well above normal until late May. Cooler than average temperatures persisted until mid-May, and a cold snap at the end of May set some record low temperatures and produced a killing frost at the higher elevations in the Smokies.

As a result of the cool temperatures, spring foliage was retarded somewhat, many birds arrived later than normal, and some transients stayed later than normal. Several winter residents, including Red-breasted Nuthatches, Purple Finches, Pine Siskins, and Evening Grosbeaks, stayed into mid-May, somewhat later than normal. The heavy rains occurred after most waterfowl had departed, and their numbers were generally low. Other waterbirds - herons, egrets, rails and gallinules, and some shorebirds - were reported in impressive numbers. The 1,150 Double-crested Cormorants near Memphis in April, if not a record count, is the largest number reported from the state in some time. The 2 Anhingas near Memphis at the end of the period are also notable, especially if they were breeding birds. — Charles P. Nicholson.

WESTERN COASTAL PLAIN REGION — The spring migration was late and most species were present in fewer than average numbers.

Grebe-Avocet: Horned Grebe: 1 Mar (15), 29 Mar (5) Paris Landing (DWB). Double-crested Cormorant: 9 Apr (**1150**) MUL (BBC, LCC); this is the largest concentration reported in recent years, and certainly one of the highest counts ever for the state. **ANHINGA:** 3 Jun (2) SW Shelby Co./DeSoto Co., MS (BBC, LCC). Cattle Egret: 14 May (113) MUL (BBC, LCC). Glossy Ibis: 21 Apr (1) PEF (James A. Ferguson, SCF). Ruddy Duck: 9 Apr (700), 14 Apr (120), 14 May (0) Robco Lake, Shelby Co. (BBC, LCC). Osprey: 14 May (1) Lake Lipscomb, DeSoto Co., MS (James O. Ewart). Mississippi Kite: 14 Apr (2), 18 Apr (1) Chucalissa, Shelby Co. (Kay Smith); 25 May (35) MEM (Joe H. Womick). Peregrine Falcon: 26 May (1) REL, Lake Co. (RCS). Common Moorhen: 25 May (4) REL, Lake Co. (RCS). White-rumped Sandpiper: 29 May (10) Britton Ford, Henry Co. (DWB). AMERICAN AVOCET: 9 May (27) Bradley, Dyer Co. (RCS).

Flycatcher-Grosbeak: Olive-sided Flycatcher: 9 May (1) Shelby Forest State Park, Shelby Co. (CHB, SCF, Selma L. Lewis, Noreen M. Smith). Willow Flycatcher: 25 May (1), 26 May (0) MUI (BBC). Bewick's Wren: 23 Mar (1) PEF (Russell Jones). **BELL'S VIREO:** 12 May (1) REL, Obion Co. (RCS). Black-throated Green Warbler: 25 May (1) MUI (BBC). "Lawrence's Warbler": 29 Apr - 2 May (1) Dyersburg (RCS). Bachman's Sparrow: 27 May (2) S of Bolivar, Hardeman Co., 27 May (1) SE Fayette Co. (Dollyann Daily, Martha G. Waldron, JRW). Lincoln's Sparrow: 9 May (3) MEM (Ginger Ilard, Robert Ilard, JRW). Western Meadowlark: 14 Apr (1) Hwy 51 By-pass, Dyer Co. (RCS). Evening Grosbeak: 8 Apr (2m, 2f) Ponderosa, Decatur Co. (CHB).

Locations: MEM — Memphis; MUI — Mud Island, Shelby Co.; MUL — Mud Lake, on TN/MS state line S of Memphis; PEF — Shelby Co. Penal Farm.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION — Wet and somewhat cool describe this spring. Although rainfall for March was normal, the excess for April was nearly four inches and that for May over five inches, much of it falling on the soggy week-end of 5-6 May, when extensive flooding occurred in many regional rivers. Temperatures were on the cool side with some records set, as at Nashville on 30 May when a record low of 38°F was established. The generally cool spring retarded foliage somewhat with the predictable result that many transients and summer residents arrrived later than normal; additionally, many species lingered past normal departure dates, waiting for spring to develop further north.

Of the reports received by the compiler, perhaps the most notable occur in the heron, rail, and shorebird groupings. Most herons were recorded in high numbers, with at least one species present in "invasion" numbers. Rails and their allies were abundant, perhaps due to the presence of many hard rains, which forced them down and then provided ample suitable, if temporary, habitat for them. Shorebirds, although not present in large numbers, were represented by many infrequently encountered species, again due to the presence of much suitable habitat.

Quite a few field observers were active this spring, although not all of them were equally active in submitting records. To the many observers who did contribute to the report which follows, sincerest thanks are offered.

Finally, let me prepare readers in advance for a modest change in noting the significance of some records. When a sighting represents the earliest or latest record of the season, it is noted by "ers" or "lrs" in the significance section of the citation. This space-saving change ought not be too disturbing to readers.

Loon-Night-Heron: Common Loon: 29 Apr (1) LHL (DJS), perhaps first LWC spring record; 20 May (1) GSP (CGD), lrs. Pied-billed Grebe: 28 May (1) MOP (SJS, BHS), late or possibly breeding. Horned Grebe: 17 Mar (17) MOP (OBL, GRM); 24 May (6) PPL (DRJ, CGD); 30-31 Mar (1) Quarry Pond, RUC (TJW, ALH); no April reports. Double-crested Cormorant: 7 May (8) OHL (CGD), lrs. American Bittern: 7 Apr (1) Bluewater, LWC (DJS), 6th LWC record; 5 May (1) north WLC (FD, Cecile Detlefsen); 9 May (1) GSP (BLP); about normal number of records. Great Blue Heron: 18 Mar (18) ACA (SJS, BHS), number suggests that an undetected rookery may be nearby, as other known rookeries in region (at DRU and AEDC Ponds, CFC) are very active by mid-March; possible these were non-breeding birds. Great Egret: 4 Apr (1) MC (HEP); 4-6 Apr (3) LHL (LWC, HMC), perhaps first LWC record; 28 Apr (2) CFC (F. Nicky Medley); 29 Apr (1) Deerfield, LWC (LWC, HMC); 6 May (1) ACA (CGD, RJM); a fair influx.

Snowy Egret: 5-8 May (1) MC (DFV, HEP, m. ob.); 26 May (1) CFC (Jerry Ingles, ELR, Wanda Winnett). Little Blue Heron: 28 Apr - 1 May (1a, 1i) LWC (DJS, MAB); 5-6 May (1i) RUC (TJW, Linda McGhee, Donald McGhee); 18 May (1a) MC (HEP); 19 May (2a) MOP (BHS). Cattle Egret: significant invasion 22 Apr - 29 May with up to 22 in MUC (ARL, m. ob.), 20 in RUC (ALH, m. ob.), 19 in CFC (ELR, m. ob.), 7 in WMC (BHS, SJS), 3 in DVC (DFV), 1 in SUC (DTC, JPC), and 1 in WLC (Eric Thibault). Green-backed Heron: 7 Apr (1) MC (DFV), ers. Yellow-crowned Night-Heron: 6 reports from CFC, CHC, DVC, RUC, and WLC with high count of 15 in RUC.

Goose-Turkey: Snow Goose: 16 Mar (1) CCNWR (DWB); 17 Apr (1) Snow x Blue hybrid) Cage's Bend, SUC (WC); only reports. Green-winged Teal: 31 Mar (1) ACA (CGD), lrs. American Black Duck: 5 May (1) Smyrna, RUC (Henry Benaugh), lrs. Blue-winged Teal: 10 Mar (2) PAP (CGD), ers; 12 May (2) MC (DFV), lrs. Northern Shoveler: 7 reports from 16 Mar - 8 May in CFC, DIC, DVC, MUC, RUC, and SWC. Canvasback: 18 Mar (3) RDL (CGD), only report. Redhead: 31 Mar (1) ACA (CGD), only report. Ring-necked Duck: 1 Apr (30) RDL (CGD); 3 Apr (9) Lewis Pond, SUC (DTC, JPC); 5 Apr (1) MC (DFV), lrs. Lesser Scaup: to EOP (2) RDL (m. ob.), late or summering. Hooded Merganser: 16 Apr - 12 May (1 female) MC (m. ob.). Red-breasted Merganser: 11 Mar (4 males) RDL (CRD); 22 Mar (20+) PPL (J. B. Owen, m. ob.); 20 May (1 female) OHD (CGD), lrs. Ruddy Duck: 1 Apr (1 male in summer plumage) MC (DFV). Osprey: 13 reports from 13 Apr - 19 May in CHC, DVC, LWC, MUC, RUC, SUC, WLC, WMC. Bald Eagle: 27 Mar (1a) PPL, RUC (Paul Strickland); 2 Apr (2a) Cherry Bottom, Humphreys Co. (John Hargrove, Roy Bishops); 13 Apr (2a, 3 downy young) near CCNWR (Chip Grafe, Rebecca Vial); the latter sighting represents the 2nd consecutive year that this species has nested in SWC; see Summer 1984 report for further details. Northern Harrier: 5 May (1) Fernvale, WMC (JCA, LDR), moderately late. Sharp-shinned Hawk: 8 reports from 3 Mar - 6 May in CHC, MUC, SUC, SWC, WLC, and WMC. Cooper's Hawk: 10 reports from 9 Mar - 19 May in CFC, DVC, MUC, RUC, SWC, WLC, and WMC. Red-shouldered Hawk: 5-6 May (15+) ACA (RJM, CGD), encouraging number. Broad-winged Hawk: 7 Apr (1) BAS (KAG), ers. Rough-legged Hawk: 1 Mar (1) COL (KGA), only report. Merlin: 6 May (1 female) HEB (RJM, CGD), only report. American Kestrel: a few observers felt numbers down (DFV, SJS). Wild Turkey: 19 Apr (1) LEF (BHS, SJS), introduced locally some years ago, but thought to have been extirpated.

Crane-Tern: Sandhill Crane: 1 Mar (16) Manchester, CFC (GLY); 5 Mar (3) and 10 Mar (22) Byrdstown, PIC (Robbie C. Hassler); 13 Mar (28) east Nashville (A. W. Conrad), about 3rd NA record. King Rail: 6 May (1) HEB (RJM, CGD), rarely reported in region in recent years. Virginia Rail: 28 Apr (5) and 7 May (3) MOP (OBL, ARL, CGD); only reports. Sora: 8 reports from 17 Apr - 19 May with high of 27 on 28 Apr at MOP (OBL, ARL). Common Moorhen: 24-28 Apr (1) MOP (ARL, OBL, m. ob.); 17-20 May (1) MUR (TJW). Purple Gallinule: 5 May (1) ACA (RJM, CGD); 6 May (1) HEB (RJM, CGD); 12 May (1) MOP (BHS, SJS); first two records possibly of same bird, though unlikely, while latter is probably first MUC record. Semipalmated Plover: 15 reports from 27 Apr - 7 Jun with high of 8 on 28 May at DRU (CGD). Piping Plover: 28 Apr - 6 May (1) MOP (ARL, OBL, m. ob.), only report of a shorebird which occurs annually now in region. American Avocet: 9 May (4) OHD (BLP), 5th NA spring record. Willet: (80+) ACA (RJM, CGD), high number, though not unprecedented. Semipalmated Sandpiper: 5 Jun (1+) MC (DFV), lrs. Western Sandpiper: 6 May (1) ACA (RJM, CGD). White-rumped Sandpiper: 27 Apr (2) Green Pond, SUC (DTC, JPC), new NA early spring date; 19 May (1) MOP (BHS, SJS). Pectoral Sandpiper: 10 Mar (1) ACA (CGD), ers. Dunlin: 3 May (1 in summer plumage)

EWP (DFV). Dowitcher sp.: 14 Apr (1+) PAP (CGD, m. ob.); 30 Apr (1) MUR (TJW); 7 May (7) Del Rio Pike, WMC (CGD); the first 2 sightings were of birds thought to be Long-billed, but adequate documentation was lacking. Common Snipe: 17 Mar (60) MC (DFV); 18 Mar (30) PAP (BHS, SJS); 7 May (1) MC (DFV), lrs. American Woodcock: 7 May (1 calling) RDL (CGD). Wilson's Phalarope: 6 May (1) GSP (Lee F. Kramer), only report. Franklin's Gull: 9-10 May (1) OHD (BLP, CGD), about 10th NA record. Bonaparte's Gull: 10 May (2) OHD (CGD), lrs. Ring-billed Gull: 17 Mar (1000) MC (DFV, HEP); 20 May (15) OHD (CGD), lrs. Herring Gull: 10 May (1) OHD (CGD), lrs. **GREAT BLACK-BACKED GULL:** 19 & 24 Mar (1 first-year) Seven Points, PPL, DVC (RCS, CGD, DRJ, m. ob.), injured bird; 3rd state record. Caspian Tern: 20 May (1) OHD (CGD), lrs. Forster's Tern: 4 reports from 28 Apr - 7 May in DVC, MUC, RUC, and WLC. Black Tern: 2 May (2) Fate Sanders, PPL, RUC (TJW, ALH), only report.

Cuckoo-Lark: Black-billed Cuckoo: reported in DVC, RUC, and WLC during 5-6 May; see Spring Count Compilation. Yellow-billed Cuckoo: very late arriving. Common Barn-Owl: only reports from CHC (RJM) and WLC (RP). Common Nighthawk: 27 Apr (1) GAL (DTC, JPC), ers. Whip-poor-will: 2 Apr (1 calling) LEF (SJS, BHS), ers. Chimney Swift: 22 Mar (1) RDL (JCM), ers. Ruby-throated Hummingbird: 7 Apr (1) MUR (Russell B. Driver), ers. Olive-sided Flycatcher: 5-6 May (1 calling) & 18 May (1) RDL (JCM); 17 May (1) DOV (DWB), only reports. Yellow-bellied Flycatcher: at least 5 reports (5 May - 5 Jun) came to the attention of the compiler but none included substantive documentation; the number of sightings suggests that this species migrates through the region more plentifully than the available records indicate; a few tape-recorded songs would be useful. Willow Flycatcher: 5-6 May (1; 1) MC; ACA (DFV; RJM, CGD); 12 May (5 singing) MOP (SJS, BHS, ARH); only reports. Least Flycatcher: 4 May (1) LBL (DWB); 6-9 May (30+) RDL (KAG, JCM), impressive number, but perhaps not unusual; 9 & 11 May (1) BAH (RWS); 24 May (1) Davy Crockett S.P., LWC (DJS); quite a good spring for this species. Great Crested Flycatcher: 13 Apr (1) Holt Patterson Knobs, DVC (RPF), ers. Eastern Kingbird: 6 Apr (2) L. Elaine, Bedford Co. (Marjory B. Harper), ers. Scissor-tailed Flycatcher: 25 Apr (1) MUR (ALH, RVM), returnee to local nesting site; 12 May (1) near OHD (Hillis C. Evans). Horned Lark: 28-29 Apr (8) COL (ARL); 5 May (2 giving courtship display) Robertson Co. (RJM, CGD); only reports.

Martin-Vireo: Purple Martin: 10 Mar (2) COL (ARL), ers. Tree Swallow: 10 Mar (2+) MOP (William N. Jernigan), ers. Northern Rough-winged Swallow: 1 Mar (1) MOP (KGA), ers. Bank Swallow: 22 May (1) MC (DFV); 28 May (2+) MOP (SJS, BHS), late if not breeding. Cliff Swallow: 17 Mar (1) CCNWR (DWB), ers; flooding on 5-6 May washed out many nests in CHC (RJM) and perhaps elsewhere in region. Barn Swallow: 20 Mar (1+) RDL (JCM), ers. Red-breasted Nuthatch: only 3 reports; remains scarce. Bewick's Wren: 3 Apr (1) RDL (Mary Dunlap, Kathy Shaw, m. ob.); 28-29 Apr (2) MUC (ARL); 5-6 May (3) RUC (ALH); 5-6 May (3) WLC (RVM); 16 May (1) Rock House, TRC (CPN); however, not located at one traditional site in SUC (DTC, JPC) and at another in WLC (RVM). Winter Wren: 21 Apr (1) BAS (KAG); 28 Apr (1) LOR (DJS), lrs. Sedge Wren: 5-6 May (1) PAP (Jim Snapper); 7 May (1) Barkley WMA, SWC (DWB), only reports. Marsh Wren: 5-6 May (3) ACA (CGD, m. ob.), only report. Golden-crowned Kinglet: 1 Apr (100+) RDL (CGD), abundant in some areas; 5 May (1) RDL (JCM); 5 May (1) Fernvale, WMC (JCA, LDR); tie for new NA late spring date. Blue-gray Gnatcatcher: 22 Mar (1) RDL (JCM), ers. Wood Thrush: 15 Apr (1) DOV (DWB), ers. Hermit Thrush: 26 Apr (1) Nashville (JCM); 28 Apr (1)

LOR (DJS, MAB), late. Gray Catbird: 21 Mar (1) COL (*fide* GRM), early or wintering. Water Pipit: 18 Mar (1+) PAP (SJS, BHS), only report. White-eyed Vireo: 11 Apr (1) Stones River Cedars, RUC (RPF), ers. Yellow-throated Vireo: 13 Apr (1) BAH (RWS), ers. Warbling Vireo: 16 Apr (1) SHV (DFV, KAG), ers. Red-eyed Vireo: 15 Apr (1) DOV (DWB), ers.

Warbler-Chat: Tennessee Warbler: 11 Apr (1) RDL (RPF), ers; 18 May (1) Love Circle Hill, DVC (JCA), lrs. Orange-crowned Warbler: 1 May (1) LSC (OBL, GRM); 5-6 May (1) WLC (*fide* RVM); only reports. Northern Parula: 4 Apr (1) LSC (GRM), ers. Yellow Warbler: 14 Apr (1) SHV (KAG), ers. Magnolia Warbler: 24 Apr (1) DOV (DWB), ers. Black-throated Blue Warbler: 6 May (1) ACA (CGD, RJM); 6 May (1) WLC (RP, FD); only reports. Yellow-rumped (Myrtle) Warbler: 21 May (1) PWP (DFV), lrs. Black-throated Green Warbler: 4 Apr (1) LSC (GRM), ers. Blackburnian Warbler: 31 May (1 male singing) LEF (SJS), new NA late spring date. Blackpoll Warbler: 17 Apr (1) COL (ARL), ers. Pine Warbler: 1 Mar (1 building nest) LOR (DJS), early breeding. Worm-eating Warbler: 13 Apr (1) Holt Patterson Knobs, DVC (RPF), ers. Swainson's Warbler: 28 Apr (1) LOR (Andy J. Augustin), 2nd LWC record; 5 May (1) north WLC (RP, FD), only reports. Louisiana Waterthrush: 18 Mar (1; 1) RDL; BAS (JCM; KAG), ers. Kentucky Warbler: 24 Apr (1) BAS (KAG), ers. Connecticut Warbler: 6 May (1) WLC (RP, FD); 9 May (1) PWP (*fide* DFV), only reports. Mourning Warbler: 5 reports 6 May - 3 Jun in DIC, DIC, and MTC. Wilson's Warbler: 16 May (1) Johntown, TRC (CPN), few county late records. Canada Warbler: more numerous than usual in PUC (RWS). Yellow-breasted Chat: 11 Apr (1) Stones River Cedars, RUC (RPF), ers.

Grosbeak-Grosbeak: Rose-breasted Grosbeak: 16-17 Mar (1 im. male at feeder) COL (Nina Thomas); many frequented feeders throughout the region with 78 at feeder in BAH (RWS) on 5 May being the most reported. Blue Grosbeak: 23 Apr (1) EWP (DFV), ers. Dickcissel: 24, 26 Mar (1 at feeder) Nashville (Annella Creech). Savannah Sparrow: 17 May (2) MC (DFV), lrs. Chipping Sparrow: 16 Mar (1) Williamsport, MUC (KGA), ers. Vesper Sparrow: 2 Apr (1) EWP (DFV), lrs. Lark Sparrow: 27 Apr (1) near entrance to Cedars of Lebanon S.P., WLC (RVM, m. obs.), ers. Lincoln's Sparrow: 23 May (1) PWP (DFV), lrs; very good spring for this species. Fox Sparrow: 28 Apr (1) Manchester, CFC (GLY), lrs. Song Sparrow: to EOP at MOP and MC (ARL; DFV), breeding at both sites. Swamp Sparrow: 9 May (1) EWP (DFV), lrs. White-throated Sparrow: 15 May (1) DOC (DWB), lrs. White-crowned Sparrow: 8 May (1) EWP (DFV), lrs. Dark-eyed Junco: 30 Apr (1) RDL (JCM), lrs. Bobolink: 6 reports from 30 Apr - 2 Jun in CFC, DVC, PIC, RUC, SMC, and WMC; also 7 Jun (1 male) MC (DFV), new NA late spring date (habitat suitable for breeding but bird not reported after this date). Yellow-headed Blackbird: 17 Apr (1 male) Cage's Bend, SUC (WC), probably first SUC record. Rusty Blackbird: 10 Apr (1) GAL (DTC, JPC), lrs. Purple Finch: 17 May (3) Nashville (LDR), lrs. House Finch: until 28 Mar in LWC (DJS); until 3 May in GAL (DTC, JPC); until EOP in Nashville (DFV). Pine Siskin: 18 May (2) Nashville (CRD), lrs. Evening Grosbeak: 16 May (1) South Tunnel, SUC (Bessie Hagan), lrs.

Locations and other abbreviations: ACA — Ashland City Area, Cheatham Co.; BAH — Barnes Hollow, Putnam Co.; BAS — Basin Springs, Williamson Co.; CCNWR — Cross Creeks National Wildlife Refuge, Stewart Co.; CFC — Coffee Co.; CHC — Cheatham Co.; COL — Columbia; DIC — Dickson Co.; DOV — Dover: DRU — Duck River Unit, Tennessee National Wildlife Refuge, Humphreys Co.; DVC — Davidson Co.; EOP — End of period; ers — earliest sighting of season; EWP — Edwin Warner Park, Davidson Co.; GAL — Gallatin; GSP — Gallatin Steam Plant, Sumner Co.; HEB — Herbert's Bottoms, Cheatham Co.; LBL — Land Between the Lakes, Stewart Co.; LEF — Leiper's Fork, Williamson Co.; LHL — Laurel Hill Lake, Lawrence Co.; LOR — Loretto, Lawrence Co.; lrs — latest sighting of period; LSC — Lewis Co.; LWC — Lawrence Co.; MC — Metro Center, Davidson Co.; MOP — Monsanto Ponds, Maury Co.; MUC — Maury Co.; MUR — Murfreesboro; NA — Nashville Area (includes all of Davidson Co. and parts of 7 surrounding counties); OHD — Old Hickory Dam, Davidson Co.; OHL — Old Hickory Lake (in 4 counties); PAP — Pardue's Pond, Dickson Co.; PIC — Pickett Co.; PPL — Percy Priest Lake (in Davidson, Rutherford, and Wilson Counties); PWP — Percy Warner Park, Davidson Co.; RDL — Radnor Lake State Natural Area, Davidson Co.; RUC — Rutherford Co.; SHV — South Harpeth Valley, Davidson and Williamson Counties; SUC — Sumner Co.; SWC — Stewart Co.; TRC — Trousdale Co.; WLC — Wilson Co.; WMC — Williamson Co.

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EASTERN RIDGE AND VALLEY REGION — In the Elizabethton-Johnson City area rainfall during the period was above average in March and April and below normal in May. This area also experienced cool weather until about 20 May. Glen Eller reported a good migration of shorebirds and warblers, but waterfowl numbers in upper East Tennessee were down with most species departing before early March.

Knoxville's rainfall was near normal with no late killing frosts or snows as in the previous two years. May was cooler than average, but their big event in May was the heavy rainfall which was about three times normal. They had some good shorebird observations from the UT Plant Sciences Farm. Nicholson reported that Purple Martins were much later than average in arrival. Most of Knoxville's late March - early April arrivals were on time, and some of the end-of-April arrivals were early. Thrushes and the "May migrant warblers" — Bay-breasted, Tennessee, Blackpoll, and Magnolia, were present in above average numbers and stayed a bit later than average, perhaps detained by the rainy weather.

In the Chattanooga area, March was drier with April and May wetter than normal. Waterfowl were not widely reported or conspicuous during migration. Short-billed Dowitchers were reported on 12 May from two widely separated locations. A check through the available references point to these numbers as the largest migration ever reported in Tennessee during the spring movement.

During this season extensive dredging was under way at the ash settling ponds at the Kingston Steam Plant. This, in turn, rendered most of the flats unsuitable for the mass number of shorebirds we had become accustomed to viewing in the past. At this time, there is little hope of the ponds improving in the foreseeable future.

In our region migrating numbers of Eastern Kingbirds are seldom reported so the flock of 50 at Knoxville and another flock of 18 in the Hiwassee River Area are of special interest. The large influx of Purple Finches, House Finches, Pine Siskins, and Evening Grosbeaks had generally departed by April, however, a few lingering individuals were still present in May.

Loon-Ducks: Common Loon: 9 Apr (19) CHL (KHD, LHD); 4 May (1) AUS (RLK); last 12 May (1) (ACD *et al.*). Pied-billed Grebe: 3 Apr (29) CHL (KHD, LHD). Double-crested Cormorant: 9 Apr (3) CHL (KHD, LHD); several reports from FLL at KNX, with a high count of 12 on 16 Apr (PSP); 4 on Melton Hill Lake near Oak Ridge on 11 Apr (WKJ); 14 May (2) NIL (KHD, LHD); last report 20 May (1) Watts Bar Lake (WLK). American Bittern: the wintering bird at Eastgate

Shopping Center, CHA, was last reported 11 Mar (RAR *et al.*). Great Egret: 3 Apr (1) JNC (RLK); 6 Apr (1) EBF (LJF); 29 Apr (1) KNX (PDH *et al.*). Snowy Egret: 4 May (1) JNC (MD). Cattle Egret: 7, 9 May (1) FLL (MLD, PSP); 7 May (1) SAB (LHD); 14 May (8) SAB (KHD, LHD). Green-winged Teal: 4 Mar (11) DOL (JAK). Blue-winged Teal: 3-10 Apr (30-45) CHL (KHD, LHD); 12 May (1) CHA (PCH, JTP). Northern Shoveler: 3 Apr (35) CHL (KHD, LHD); 3 Apr (20) HRA (KHD, LHD); 8 May (3) KNS (KTOS); 12 May (1) CHA (PCH, JTP); 14 May (1) AUS (RLK). Gadwall: 10 Apr (15) KSP (KHD, LHD). American Wigeon: 28 Apr (1) AUS (RLK). Ring-necked Duck: 9 Apr (1) CHL (KHD, LHD). Greater Scaup: last report 3 Apr (10) CHL (KHD, LHD). Lesser Scaup: 2 Apr (600) NIL (KHD, LHD). White-winged Scoter: 17 Mar (2) BOL (RH). Bufflehead: 24 Apr (1) EBF (LJF). Hooded Merganser: 29 Apr (1) KNX (JAK). Red-breasted Merganser: 21 Apr (1) AUS (RLK) — this was the last report after a good migration there. Ruddy Duck: wintering birds on CHL remained to 10 Apr (KHD, LHD).

Osprey-Tern: Osprey: one unsuccessful nesting attempt Cummings Lake, TRG (KHD, LHD, JDR). Bald Eagle: up to 2 all season on Norris Lake (JCH); 1 ad on 10 Apr at EBF (LJF). Red-shouldered Hawk: 6 active nests in the CHA area (KHD, LHD, RAR, JDR). Red-tailed Hawk: 2 active nests TRG (KHD, LHD), CAT (JDR). Merlin: 9, 10 Mar (1 ad) Soddy (Bobby J. Thompson, JTP). Sora: 21 Apr (1) CHA (PCH, AMJ *et al.*); 26 Apr - 9 May (1) AUS (RLK); 12 May (1) KNX (MLD *et al.*). Purple Gallinule: 22 Apr (1 found dead) Maryville (Jim Post, *fide* JBO); 11 May (1) KNX (Jamie Cloyd, *fide* JBO). Common Moorhen: 28 May (1) Knox Co. (John Benzinger, *fide* JBO). Sandhill Crane: from the migration reported last period, an additional 352 birds in 4 groups were sighted in CHA and Catoosa Co., Georgia (RAR, Katherine K. Boyles). Black-bellied Plover: 8 May (1) KNX (MWA). Greater Yellowlegs: 21 Apr (5) CHA (AMJ, PCH *et al.*); 28 Mar - 7 May (1+) AUS (RLK). Lesser Yellowlegs: 21 Apr (20) CHA (AMJ, PCH *et al.*); 13 Apr - 14 May (1+) AUS (RLK, RH). Solitary Sandpiper: 21 Apr (12) CHA (AMJ, PCH *et al.*). Willet: 7 May (1) Louisville, Blount Co. (MLD). Upland Sandpiper: 21 Apr (1) CHA (AMJ, PCH *et al.*). Ruddy Turnstone: 8 May (4) KNX (MWA). Least Sandpiper: 4 Mar (4), 15 May (22) DOL (JAK). White-rumped Sandpiper: 12 May (5) KNX (KTOS). Pectoral Sandpiper: 26 Mar (80) SAB (KHD, LHD); 28 Mar - 9 May (1+) AUS (RLK, MD); 30 Mar (46) EBF (LJF); 21 Apr (35) CHA (AMJ, PCH *et al.*). Dunlin: 1-27 Mar (20-50 sporadic) SAB (KHD, LHD); 4 Mar (6) DOL (JAK); 13 Apr (1), 7 May (2), 8 May (1) AUS (RLK, MD); 8 May (75) KNX (MWA). **SHORT-BILLED DOWITCHER:** 12 May (62) CHA (PCH, JTP); 12 May (52) NIL (ACD, LHD), largest numbers ever published for spring (but most spring Dowitchers not identified to species - Editor). Dowitcher sp.: 8 May (2) AUS (RLK). Common Snipe: 11 Mar (60) SAB (KHD, LHD); 21 Apr (6) CHA (AMJ, PCH *et al.*). Bonaparte's Gull: 4 Apr (4) SAB (LHD); 6 Apr (1) BOL (HHD); 7 Apr (20) FLL (JAK); 8 Apr (60) DOL (RLK); 16 Apr (7) CHL (KHD, LHD). Ring-billed Gull: 24 Apr (1) NIL (KHD, LHD); 12 May (20) DOL (JAK). Common Tern: 9 May (4) SAB (KHD, LHD). Forster's Tern: 1 May (1) AUS (RLK, MD).

Barn-Owl Wren: Common Barn-Owl: individuals reported from 2-3 locations JNC (LHTOS). Great Horned Owl: one active nest CAT (JDR). Red-headed Woodpecker: 28 Apr, 14 May (1) JNB (RLK); single territorial birds reported from Norris Lake and in KNX (JCH). Yellow-bellied Flycatcher: 15 May (1) JNC (RLK). Alder Flycatcher: 1 in Cumberland Co. on 14 May by BRC, JMC; not present 15 May. Willow Flycatcher: first 7 May AUS, then several additional sightings there (RLK). Eastern Kingbird: flock on 50 on 8 May at KNX (MWA); 15 May (flock of 18) HRA (KHD, LHD); very few spring reports of migrating birds in region. Horned Lark: 20+ regular White Pine (JAK). Tree Swallow: first

16 Mar (3) EBF (LJF); 12 May (pair carrying nesting material to cavity; third year this site has been used) DOL (JAK). 30 Mar - 10 May (1+) AUS (LHTOS); 16 Apr (250) CHL (KHD, LHD); 16 Apr (100) NIL (KHD, LHD). Bank Swallow: 8 May (2) SAB (KHD, LHD); large, late flock of 115 reported on 15 May near FLL (MLD). Red-breasted Nuthatch: 11 Apr (1) Signal point (KHD); present in small numbers KNX, last report 11 May (1) (JCH). Sedge Wren: 28 Apr (1) AUS (RLK, CFW); 29 Apr (1) KNX (PDH). Marsh Wren: 9 May (1) AUS (RLK).

Kinglet-Grosbeak: Ruby-crowned Kinglet: present in high numbers KNX during late April and early May, last report there 11 May (JCH). Veery: present in much higher than normal numbers KNX with last report 13 May (JCH), a bit later than normal; high count on 14 on 9 May at KNX (JCH, JBO). Swainson's Thrush: 25 May (1) Norris (CPN), last report. Hermit Thrush: 1 May (1) JNC (RLK). Water Pipit: 18 Mar (15) AUS (RLK). Orange-crowned Warbler: 28 Apr (2) JNC (RLK, CFW, SG); 1-5 May (1) KNX (MLD, JCH *et al.*). Blackburnian Warbler: 23 May (1) KNX (JCH, JBO); 29 May (1) KNX (Barbara Finney) — both are late reports. Dickcissel: 27, 29 Apr (1) KNX (JAK, Jim & Betty Mason); 14 May (1) JCN (RLK, RH). Lincoln's Sparrow: 1 May (1) KNX (MLD, Lou Fuller, Barbara Finney); 10 May (1) KNX (JCH, JBO). Bobolink: 9 May (50+) JNB (RLK). Purple Finch: last report 9 May (1) JNC (RH). House Finch: the large flocks left JNC in mid-April, with only a few local residents remaining behind (LHTOS); out of several hundred present at one location in KNX on 10 Mar 185 were banded (SJS *et al.*). Pine Siskin: large concentrations reported in JNC until mid-April, then tapered off with last 2 birds on 8 May (RH); at one location in KNX 200 were present on 19 Mar with 109 banded (SJS *et al.*); at Collegedale, last bird banded on 13 May (REL); last sighting in CHA on 23 May (Janet A. Phillips). Evening Grosbeak: several flocks of 4-12 reported in JNC until 5 May, with last report on 14 May (RH); at KNX, numerous through mid-April with last report 10 May (2) Norris (CPN); last bird banded at Collegedale on 2 May (REL), and last sighting there on 8 May (3) (Gertrude L. Fleming).

Locations: AUS — Austin Springs; BOL — Boone Lake; CAT — Catoosa Co., Georgia; CHA — Chattanooga; CHL — Chickamauga Lake; DOL — Douglas Lake; EBF — Eagle Bend Fish Hatchery, Anderson Co.; FLL — Fort Loudon Lake; HRA — Hiwassee River Area; JNC — Johnson City; JNB — Jonesboro; KSP — Kingston Steam Plant, Roane Co.; KNS — Knoxville; NIL — Nickajack Lake; SAB — Savannah Bay, Hamilton Co.; TRG — Tennessee River Gorge.

KENNETH H. DUBKE AND LILLIAN H. DUBKE, 8139 Roy Lane, Ooltewah, TN 37363.

EASTERN MOUNTAIN REGION — Several species were present in lower than average numbers this spring, while other species were found in the highest numbers noted in some time. Waterfowl numbers were low, while shorebird numbers were above average. For the first time in several years, the Purple Martin population seemed to show an increase. Several of the normally hard to find warblers were seen in good numbers, including the Blue-winged, Blackpoll, and Northern Waterthrush.

Temperatures were cool through mid-April, and rainfall during this period was below average. Early May was warm and wet, with local flooding following very heavy rains on 7 and 8 May. The rest of May was about average in temperature and rainfall.

Loon-Falcon: Common Loon: 28 Apr (1) WatL (CFW), last report. Double-crested Cormorant: 9 Apr (3) WatL (RLK). Green-backed Heron: 15 Apr (1) ELI (HLF), first report. Yellow-crowned Night-Heron: 28 Apr (1) HS (GDE), first report, and 2 birds seen on nest there on 3 May (RLK). Mallard: 7 Apr (1 nest with 9 eggs) SHL (RL). Blue-winged Teal: 22 Apr - 8 May in ELI area (LHTOS). Northern Shoveler: 13 Apr (3) WagIs (CFW). Ring-necked Duck, Lesser Scaup: very few sightings. Red-breasted Merganser: 28 Apr (4) WatL (GDE, HLF, RC). Osprey: present 7 Apr - 13 May in ELI area (LHTOS). Sharp-shinned Hawk: 6 reports from ELI area, about average. Cooper's Hawk: 2 reports from ELI area, below average (LHTOS). Red-shouldered Hawk: 19 May (1) Ripshin Lake (BBC, LCC). Broad-winged Hawk: 11 Apr (1) WatL (CFW), first report. Peregrine Falcon: 28 Apr (1) RM, Carver's Gap (GDE, HLF, RC).

Turkey-Sapsucker: Wild Turkey: 9 broods reported on HM *fide* TWRA personnel. Greater Yellowlegs: 4 May (75), 5 May (45) WagIs (RH), high numbers for area. Lesser Yellowlegs: 28 Apr - 14 May (2-12) SmV (RH, CFW). Western Sandpiper: 9 May (3) St. John's Pond (RH). Pectoral Sandpiper: 9 Apr (2) WatL (RLK). Bonaparte's Gull: 9 Apr (6) WatL (RLK). Forster's Tern: 9 Apr (1) WatL (RLK). Black-billed Cuckoo: 17 May (1) RM (HHD), first report. Yellow-billed Cuckoo: 28 Apr (1) IMG (SG), first report, late. Common Barn-Owl: 2 pairs through period at SHL (*fide* GDE); 1 in ELI 10 - 28 Apr (GDE). Great Horned Owl: 15 Apr (1) SHL (RL). Barred Owl: 18, 19 May (5) RMSP (RLK). Red-headed Woodpecker: 18 May (1) near RMSP (Charlie Smith, KHD). Yellow-bellied Sapsucker: 6 Mar (1) ELI (HLF), last report.

Flycatcher-Vireo: Willow Flycatcher: 19 May (1) RM, (RLK), first report; then found in 5 locations in ELI area. Alder Flycatcher: 19 May (1) RM, Jane Bald (RLK), first report; then 7 present on RM. Least Flycatcher: 28 Apr (1) RM (GDE, HLF, RC), first report. Horned Lark: 20 May (2) RM, Jane Bald (GRM). Purple Martin: 15 Mar (1) ELI (GDE), first report, later than usual; then population higher than in recent years. Tree Swallow: 30 Mar - 10 May in ELI area (LHTOS). Bank Swallow: 30 Apr (2) WagIs, 7 May (5) St. John's Pond (RLK *et al.*). Cliff Swallow: present in ELI area 30 Apr - 16 May (RLK). Common Raven: 3-6 regular on RM, IM (LHTOS). House Wren: 16 Apr (1) SHL (RL), first report. Veery: 3 May (1) RM (RLK), first report. Hermit Thrush: 15 Apr (1) SHL (RL); 24 Apr (1) ERW (GS, RLK). Water Pipit: 16 Mar (4) St. John's (RH); 28 Apr (2) near ELI (RC); 20 May (1) RM, Grassy Ridge (RLK, CFW). Loggerhead Shrike: no reports. Solitary Vireo: 25 Mar (1) Laurels (RLK), first report. Warbling Vireo: 23 Apr (1) SHL (RL), first report.

Warbler-Grosbeak: Blue-winged Warbler: 28 Apr (1) ELI (HLF), first report. Golden-winged Warbler: 5 May (1) RMSP (RLK), first report. Orange-crowned Warbler: winter feeder resident stayed through 4 Apr near ELI (Barbara Walsh); 28 Apr (1) SmV (RLK). Nashville Warbler: 18 May (1) RM, Carvers Gap (KHD, Charlie Smith). Yellow-throated Warbler: 15 Apr (1) SHL (RL), first report. Blackpoll: 28 Apr (1) ELI (GDE, HLF), first report. Cerulean Warbler: 28 Apr (1), 8 May (1) near ELI (RLK). Northern Waterthrush: present in ELI area 24 Apr - 19 May (LHTOS). Louisiana Waterthrush: 25 Mar (1) Laurels (RLK), first report. Connecticut Warbler: 25 May (1) near ELI (RC). Wilsons Warbler: 11 May (1) SV (HHD). Canada Warbler: 28 Apr (1) ELI (RLK), first report. Blue Grosbeak: 28 Apr (1) near ELI (GDE, HLF, RC), first report. Vesper Sparrow: 13 Apr (4) SmV (HLF); 20 May (2) RM, Grassy Ridge (RLK, CFW). Grasshopper Sparrow: 24 Apr (1) near ELI (RC), first report; above average number of sightings rest of spring. Fox Sparrow: 9 Mar (1) ELI (HLF), last report. White-throated Sparrow: 14 May (1) ELI (HLF), last report. White-crowned Sparrow: 28 Apr (1) SHL

(RL), last report. Bobolink: 13 May (35) near ELI (*fide* GDE). Rusty Blackbird: 25 Mar (3) SmV (RH), only report. Purple Finch: 9 May (1) ELI (HLF), last report. House Finch: winter flocks dispersed by early May, 3-5 individuals rest of period in ELI area (*fide* GDE). Pine Siskin: 18 May (1) RM (RLK), last report. Evening Grosbeak: 17 May (1) ERW (GWS), last report.

Locations: ELI — Elizabethton; ERW — Erwin; HM — Holston Mountain; HS — Hunter Swamp near Elizabethton; IMG — Iron Mountain Gap; RM — Roan Mountain; RMSP — Roan Mountain State Park; SHL — South Holston Lake; SmV — Siam Valley; St. John's — St. John's pond near Elizabethton; WagIs — Wagners Island, Watauga River; WatL — Watauga Lake.

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AUTUMN HAWK FLIGHTS 1984

LINDA J. FOWLER

Between 6 September and 21 October, 1984, observers spent 228.8 hours watching hawks from Tennessee lookouts, resulting in the season's total of 4,236 hawks (Table 1). Total hawks per hour (18.3) in 1984 was the lowest reported in at least 11 years (*Migrant* 54:35, 1983). High daytime temperatures (27°C-35°C) and clear blue skies during much of September created particularly poor conditions for hawk watching. Of 10 active Tennessee lookouts during the 1984 season, Look Rock received the most coverage (18 days), followed by Signal Point (11 days), and Mt. Roosevelt firetower (5 days) (Table 2). For the first time in over 20 years, a station from west Tennessee was active.

Broad-winged Hawk flights were generally poor with no daily totals exceeding 1,000. Following the passage of a mild cold front on 14-15 September, the first Broad-wing flights exceeding 100 were seen at Raccoon Mountain (316 birds) and Signal Pt. (213 birds) on 15 September. Although Chattanooga temperatures dropped to 24°C/14°C (max/min) on 15 September, temperatures at Knoxville remained high (32°C/17°C) (*Climatological Data for Tennessee* 89(9):9, 1984) and Look Rock reported no Broad-wings (it was only active for two hours). However, on 16 September temperatures dropped to 24°C/7°C at Knoxville and 390 Broad-wings were reported from Look Rock. Although temperatures remained cool for the next 3 days, high easterly winds averaged 72 km/hr at Knoxville on 16-17 September. On 18 September winds became calm and northeasterly, and the season's Broad-wing peak was reported. Audrey Hoff and David Highbaugh saw 768 Broad-wings passing over Look Rock within 15 minutes and noted ". . .at 1414 hours, a kettle of 550 came over lookout, followed closely by other groups of 90, 40, 23, 65, all within 15 minutes." On 19 September, Look Rock reported another 247 total Broad-wings but little movement was reported from 20-21 September from active stations.

The weekend of 22-23 September was the warmest of the month, with temperatures climbing to 30°C-32°C in most of the state. Although 7 stations were active, Broad-wing totals exceeding 100 were reported only from Ooltewah FT (324), Look Rock (258), and Signal Pt. (128). On 23 September Look Rock reported 261 Broad-wings while the other 3 active stations reported 10 or fewer Broad-wings. Following peaks on 25 September (172 Broad-wings) and 29 September (230) at Signal Pt. (other stations reported less than 50 birds for remainder of season), no Broad-wings were reported after 30 September from active stations.

TABLE 1. TENNESSEE AUTUMN HAWK FLIGHTS - 1984.

Date	Location	Reporter (# Observers)	Hours	TV	BV	SS	CH	Unid. Accip.	RT	RS	BW	Unid. Buteo	NH	OS	AK	Others	Total
09/06	Mt. Roosev. FT	C. Overton (2)	2.0								2	2				10u	14
09/08	Look Rock	A. Hoff (1)	2.8													1u	1
	Bald Mt.	B. Finney (2)	5.0					1					1				2
09/09	Look Rock	A. Hoff (2)	3.0														0
	Bald Mt.	B. Finney (2)	6.0										1				1
09/12	Look Rock	A. Hoff (1)	2.5									1					1
09/13		D. Highbaugh (1)	4.0	3							5						8
09/15		A. Hoff (2)	2.0														0
	Raccoon Mt.	P. Robinson (3)	6.5	86	10	7			4	1	316			1	2		427
	Signal Pt.	K. Dubke (1)	9.0			7					213		1	2	1		224
09/16	Look Rock	A. Hoff (4)	6.5				1	1			390	3			2	1u	398
	Signal Pt.	K. Dubke (1)	8.0			1					58			1			60
	Thorn Hill	L. Fowler (2)	4.0								17					1u	18
09/17	Look Rock	D. Highbaugh (1)	4.0	4	19	1	1		2		74			1	1		103
09/18		D. Highbaugh (1)	6.3			1					780	3		1			785
09/19		A. Hoff (2)	8.5			1		1		1	247		1				251
	Mt. Roosev. FT	C. Overton (2)	2.0								2	6				18u	26
09/20	Look Rock	A. Hoff (3)	10.0					1	1		32		1		2	2u	39
09/21		A. Hoff (2)	6.5			1		2	4		70	1				8u	86
	Bon Air	S. Bell (2)	5.5								3						3
	Mt. Roosev. FT	C. Overton (1)	1.8								4	5				15u	24
09/22	Look Rock	A. Hoff (10)	9.0			5	1	4		1	258	10		1		2f, 6u	288
	Bon Air	S. Bell (13)	8.0								16	1	1			1f	19
	Thorn Hill	L. Fowler (11)	4.5							1	26						27
	Mt. Roosev. FT	T. Koella (3)	5.0			5					5				3		13
	Memphis	M. Waldron (13)	8.0								1				3	1ML	5
	Signal Pt.	K. Dubke (1)	8.0			3					128				1		132
	Ooltewah FT	L. Dubke (4)	6.5	9	13	4		1	4	3	324				1		359
09/23	Look Rock	A. Hoff (7)	6.6			2		2			261		1	1		3u	270
	Mt. Roosev. FT	J. Campbell (3)	4.0					2			4			1	2	1PG	10
	Bon Air	S. Bell (9)	7.5								2	7				1u	10
	Signal Pt.	K. Dubke (1)	8.0								10						10
09/24	Look Rock	H. Overton (2)	3.0			4					15					1u	20
	Signal Pt.	J. Patton (1)	4.0			2	1				30						33
09/25		J. Patton (1)	5.8			2					172						174
09/26		J. Patton (1)	3.5			1					46						47
09/27		J. Patton (1)	3.0								50		2				52
09/28		J. Patton (1)	3.0								5		1				6
09/29	Look Rock	A. Hoff (1)	0.5														0
	Laurel Grove FT	J. Campbell (2)	3.0					1	1		2						4
	Signal Pt.	K. Dubke (1)	8.0			2					230		1				233
09/30		K. Dubke (1)	6.5		6	1					14						21
10/03	Look Rock	A. Hoff (1)	2.0			1		1				1					3
10/06		A. Hoff (1)	3.5			11	1	6		1					3		22
10/21		A. Hoff (2)	2.0			4		1							1	1u	7
Total			228.8	102	48	66	5	24	16	8	3812	40	11	9	22	71u,1PG, 1ML	4236

TABLE 2. Summary of Tennessee Autumn Hawk Flights 1984 by Station
(4 or more active days)

Location	Days	Hours	BW High	TV	BV	SS	CH	Unid. Acci.	RT	RS	BW	Unid. Bueto	NH	OS	AK	Others	Total	Total Hawks per Hour
Look Rock	18	82.7	780 (9/18)	7	19	31	4	19	7	3	2132	19	3	4	9	2f,23u	2282	27.6
Signal Pt.	11	66.8	230 (9/29)		6	19	1				956	5	5	2			992	14.9
Mt. Roosev. FT	5	14.8	5 (9/22)			5		2			8	22		1	5	43u,1PG	87	5.9

No large daily totals of Red-tailed or Red-shouldered Hawks were reported from Tennessee lookouts. Highest daily total for Red-tails was 4 birds (Raccoon Mt. on 15 September, Look Rock on 21 September, and Ooltewah FT on 22 September) and for Red-shouldered Hawks was 3 birds (Ooltewah FT on 22 September). In the southern Appalachian region, Red-tailed Hawks usually peak in late October and early November (*Newsletter of the Hawk Migration Association of North America* 7(2):26, 1981) when most Tennessee lookouts are no longer active.

Sharp-shinned Hawks were reported in slightly lower numbers (0.29 birds/hr) than the past 11 year (1972-83) average of 0.33 birds/hr. Sharp-shins were first reported streaming through Tennessee on 15 September (7 birds at Raccoon Mt. and 7 birds at Signal Pt.) and continued through 21 October, with the highest daily total of 11 birds recorded on 6 October at Look Rock. Only 5 Cooper's Hawks were reported from Tennessee lookouts during the 1984 season (0.02 birds/hr), which is well below the 11 year average of 0.08 birds/hr. Four of these 5 birds were seen from Look Rock. Recent papers (*Amer. Birds* 33:236-240, 1979) have emphasized the difficulty in distinguishing Cooper's and Sharp-shinned Hawks. In Tennessee, observers seem very cautious about identifying Cooper's Hawks (justifiably). How many of the 24 unidentified Accipiters reported this season were Cooper's Hawks?

Northern Harrier totals reported in 1984 (0.05 birds/hr) were only slightly below the 11 year average of 0.06 birds/hr. Forty-five percent of the total birds were from Signal Pt. Highest daily Harrier total was 2 birds at Signal Point on 27 September.

Nine Ospreys were reported for this season (0.04 birds/hr) which is lower than the past 11 year average of 0.07 birds/hr. Although no peaks were noted, all Ospreys were seen between 15-23 September. No Bald or Golden Eagles were sighted from Tennessee lookouts this year.

American Kestrels were reported in the highest numbers (0.10 birds/hr) in more than 11 years. The highest daily Kestrel total was 3 birds and 82% of the total birds were seen between 15-23 September. The only Peregrine Falcon, an adult, was seen by Jim and Betty Reid Campbell on 23 September from Mt. Roosevelt FT. A Merlin was seen by Martha Waldron on 22 September from her Memphis lookout.

No large flocks of Turkey Vultures such as the 1,845 birds reported from Townsend in October 1982 were seen this year. The highest daily total of Turkey Vultures was reported by Peter Robinson on 15 September (86 birds) from Raccoon Mt. in 6.5 hours of observation. His largest flock was 26 birds seen between 1100 and 1200 hours. On 27 October at 1330 hours, Louise Fuller counted 86 Turkey Vultures flying south over her Knoxville home. The highest Black Vulture daily total and highest number of birds in one flock was 19 seen from Look Rock on 17 September between 1200 and 1300 hours.

Observers are still having difficulty determining whether Turkey Vultures, Black Vultures, Red-tailed Hawks, and Red-shouldered Hawks are residents or migrants. Exaggerated totals can result for these as well as other species when resident birds are reported during each visit to a lookout. In general, the peak migration for Turkey Vultures and Red-tailed Hawks is reported from mid-October through mid-November in the southern Appalachian region (*HMANA Newsletter* 8(2):25-26, 1982). Historically, Black Vultures and Red-shouldered Hawks have been reported in such low numbers that little is known about their migration. Probably the best way to separate migrant from resident birds is to consistently monitor one lookout and to note which hawks are present on a regular basis (residents).

KEY TO SPECIES ABBREVIATIONS IN TABLES

TV — Turkey Vulture; BV — Black Vulture; SS — Sharp-shinned Hawk; CH — Cooper's Hawk; RT — Red-tailed Hawk; RS — Red-shouldered Hawk; BW — Broad-winged Hawk; NH — Northern Harrier; OS — Osprey; AK — American Kestrel; PG — Peregrine Falcon; ML — Merlin; f — Unidentified falcon; u — Unidentified raptor.

LOOKOUTS

For a detailed description of lookout stations not described in this report, see *Migrant* 52:89-90, 1981; 53-62, 1982; 54:36-37, 80, 1983.

Memphis — From various points on the outskirts of the city of Memphis, hawks can be seen migrating down the western edge of Tennessee (elevation 61 m). Although there has not been active hawk watching in west Tennessee in over 20 years, back in the 1950's, large numbers of Broad-winged hawks were reported from Memphis and from lookouts 32-48 km north of Memphis (*Migrant* 22:55-56, 1951). More recently, Oliver Irwin (*Migrant* 34:2-7, 1963) reported on the migration of Mississippi Kites, Red-tailed Hawks, and other hawks from Memphis. Future hawk watching from Memphis and other west Tennessee sites might offer some interesting information about fall hawk flights in Tennessee.

Raccoon Mountain — An open area located on the top of Raccoon Mountain at the Pumped Storage Project operated by TVA at an elevation of 450 m in Marion County affords a good view of hawks migrating down Walden's Ridge (35°03'00''N, 85°24'00''W, Wauhatchie, Tenn. 7.5 quad USGS). This is the first year of observations reported from this lookout.

Rt. 4, Box 541, Valley Lane, Clinton, TN 37716. Accepted 16 July 1985.

MINUTES OF THE 1984 FALL MEETING AND SYMPOSIUM

The 1984 Fall Meeting and Symposium, consisting of a Board of Directors meeting, symposium, and field trips, was held in Murfreesboro, Tennessee, 2-4 November 1984.

BOARD OF DIRECTORS MEETING

The Fall Meeting of the Board of Directors was called to order at 1730 on 3 November by President Tony Koella, with Secretary Barbara Finney recording the minutes. The minutes of the 19 May 1984 Board of Directors and Business Meetings were read and approved. The secretary requested that those chapters which had not furnished her an updated list of directors do so.

REPORTS OF OFFICERS

TREASURER George Payne reported assets of $35,542.04 with anticipated liabilities of $9,850, leaving a capital reserve of $25,692.04. Income since the May meeting was $1,466.88. Since that meeting memberships had increased by 106, for a total of 931 memberships, including 44 libraries and exchanges with *The Migrant*.

VICE PRESIDENT for East Tennessee, Lil Dubke, reported on the projects underway by the chapters in her region. The VICE PRESIDENT for Middle Tennessee was absent and there was no report from the VICE PRESIDENT for West Tennessee.

Robbie Hassler, DIRECTOR-AT-LARGE for Middle Tennessee, reviewed figures which she had given on eagles at Dale Hollow Lake. Neither of the other DIRECTORS-AT-LARGE offered reports.

The CURATOR'S report was read by the secretary and stated that there had been no changes in the collections.

The EDITOR of *The Migrant,* Charles P. Nicholson, announced that he and the contributors to *The Migrant* were all working with the goal of having publication on schedule by early 1986. He also outlined plans for a special issue to come out in connection with the joint meeting of the TOS and The Wilson Ornithological Society in April 1986. He had no report from the Certification Committee.

The EDITOR of *The Tennessee Warbler,* Sharon Bostick, sent a report which was read by the secretary.

REPORTS OF COMMITTEES

There was no report from the Finance Committee.

CONSERVATION — The President announced that Angela Davis will serve as chairperson of the committee, and recommended that individual chapters appoint conservation chairpersons. The President then outlined plans for a proposed National Guard training base, to be located between Fall Creek Falls State Park and Savage Gulf, and requested that members write to express themselves on this issue. Charles Nicholson gave some background on the proposal, and offered the rough draft of a resolution requesting preparation of a full Environmental Impact Statement. He moved the adoption of the resolution, which was seconded by Helen Dinkelspiel. Following some discussion, the motion was withdrawn and reworded to express opposition to the project. The resolution was adopted. There was then a brief discussion on the relationship between TOS and the Tennessee Environmental Council.

NEW BUSINESS

The President appointed a nominating committee to serve for 2 years, composed of Martha Waldron, chairperson, Ann Hettish, and Wallace Coffey.

Charles Nicholson recommended that the TOS endorse the Breeding Bird Atlas project outlined in a proposal from the atlas feasibility committee. Paul Harris moved that this action be carried out with an official action to be taken at the May 1985 meeting. Jim Ferguson seconded the motion which carried. A steering committee was appointed, made up of Paul Hamel, Charles Nicholson, Fred Alsop, Bob Hatcher, Martha Waldron, Jim Ferguson (ex-officio), Steve and Barbara Stedman. The President expressed his appreciation to Nicholson and Hamel for work on this project.

ANNOUNCEMENTS

The President also thanked Fred Alsop for the quality of programs which he had arranged as Program Director, and thanked the Murfreesboro Chapter for their hospitality. Kenneth Anderson of the Columbia Chapter invited all of the TOS members to attend the 1985 Spring meeting to be held the first weekend in May. Lil Dubke announced that arrangements had been made to hold the 1985 Fall Meeting and Symposium at Fall Creek Falls State Park, 1-3 November. Mack Pritchard read a letter from an Ohio wildlife research group in regard to marked Sandhill Cranes and requesting information on sightings of these birds. George Payne made a motion to hold the 1985 Foray in Cumberland County. The motion passed. Charles Nicholson reported that TOS had formally invited the Wilson Society to a joint meeting in April 1986 and that a preliminary acceptance had been received. The Holiday Inn in Gatlinburg had been reserved for the meeting.

BARBARA W. FINNEY, *Secretary*

SYMPOSIUM PROCEEDINGS

The program of the 1984 TOS Symposium was arranged by Fred J. Alsop, III. Following are abstracts of talks presented at the Symposium. One presentation, a discussion of the proposed Tennessee Breeding Bird Atlas, presented by Charles Nicholson and Paul Hamel, is not abstracted here. Information on the atlas proposal has been published in *The Tennessee Warbler*.

REELFOOT LAKE FORAY, by T. David Pitts, Biology Department, UT Martin. Twenty-one observers participated in the Reelfoot Lake, Tennessee, foray on 12 May 1984 and the follow-up on 21-24 June 1984. In May, 149 species, including many migrants, were recorded; 86 species were found in June. One Purple Gallinule nest was found; this is the first nest reported from Reelfoot Lake in recent years. The presence of adult and juvenile Common Moorhens indicated continued nesting by this species at Reelfoot Lake. Willow Flycatchers and Yellow Warblers were observed on territories; however, no other evidence of nesting in the area is known for either species. Hooded Warblers and American Redstarts, both of which were formerly abundant as nesting species, were present in low numbers.

NESTING OF THE HOUSE FINCH IN CHATTANOOGA, by John R. Freeman and Maurice E. Edwards, Biology Department, UT Chattanooga. Nesting of the House Finch (*Carpodacus mexicanus*) has been observed on the campus of the University of Tennessee at Chattanooga in the summers of 1982, 1983 and 1984. Six nests have been built by 3 pairs of birds. Of the 28 eggs, all were hatched but a smaller number of individuals survived to leave the nests.

THE TENNESSEE ANIMAL BIOGRAPHY SYSTEM (TABS), by Christopher J. O'Bara, Tennessee Cooperative Fishery Research Unit, Cookeville, and Clifton J. Whitehead, Tennessee Wildlife Resources Agency, Nashville. The use of computerized information systems has expanded with the increased complexity of information about our natural resources. The Tennessee Cooperative Fishery Research Unit in cooperation with the Tennessee Wildlife Resources Agency is developing the Tennessee Animal Biography System (TABS) to fulfill the needs of many state and federal agencies. The system utilizes existing habitat classification systems to relate habitat and life history parameters to individual vertebrate and invertebrate species. Currently, work is being completed on the approximately 300 bird species believed to reside in or migrate through Tennessee.

PEREGRINE FALCON HACKING PROGRAM IN THE GREAT SMOKY MOUNTAINS NATIONAL PARK, by Rick Knight, TOS, Johnson City. The Peregrine Falcon is an endangered species whose nesting population had been extirpated from the eastern United States. The last known nest in Tennessee was at Reelfoot Lake in 1947, with the last known nest in the GSMNP in 1942. As part of a multi-agency effort to restore their numbers, 4 young falcons were hacked in the park in 1984 in hopes that they would return to the region to nest. The young falcons were released when about 6 weeks old and spent the next 3 to 4 weeks developing their flight and hunting skills before dispersing from the site.

RETURNING THE PEREGRINE FALCON AS A NESTING SPECIES IN TENNESSEE, Why and How the TOS Should Be Involved, by Kenneth H. Dubke, President, Chattanooga Chapter, TOS. A review was presented on the discovery and former nesting of the Peregrine in the state before its demise from DDT in the 1950's. Telling this story, and the efforts to restore a viable breeding population within the state, is one of the most effective methods of communicating the purpose of the TOS to the general public. To aid in the restoration project, the Chattanooga Chapter has volunteered to spearhead the endeavor and one of the methods is leading a fund raising drive with Angela C. Davis in charge.

TENNESSEE'S BALD EAGLE RESTORATION STATUS, by Robert M. Hatcher, Tennessee Wildlife Resources Agency, Nashville. With the help of many people and agencies, 1984 was a very encouraging year for Bald Eagle restoration in Tennessee. A record total number of 10 immature birds was hacked at Reelfoot Lake and Land-Between-the-Lakes. This comprises a total of 27 eagles that have been hacked in Tennessee since the initial year of 1980. The year 1984 also marked the second known successful nest since 1961. This nest, located on LBL, involved the first known return of a Tennessee-hacked eagle as a successful parent. This indicated a need to continue saturation of hacked birds at existing and future hack sites in order to maximize opportunities for them to locate mates when they return as adults.

ROUND TABLE NOTES

RED-NECKED PHALAROPE IN KNOX COUNTY, TENNESSEE — On 21 September, 1982, Joseph L. Collins and I observed a Red-necked Phalarope (*Phalaropus lobatus*) in the Tennessee River at Peter Blow Bend, 6.5 km downstream from the US 129 bridge at Knoxville, Knox County, Tennessee. The bird was identified by its streaked back, dark band extending back from the eye, and thin bill. We observed the bird around mid-day for about 20 minutes. The phalarope was swimming in and around floating patches of Eurasian water-milfoil (*Myriophyllum spicatum*) and fed by spinning and then picking up prey in its bill from near the water surface. We saw the phalarope capture at least 3 prey items, which appeared to be invertebrates between 2 and 3 cm in length. We were in a boat at the time of the observation, and, by drifting downstream, were able to approach to within 2 m of the bird (Figure 1). We made 3 such approaches, and, each time, as the boat bore down on the bird, it flew several meters upstream and landed in the water at another patch of water-milfoil. The phalarope's white wing stripe was evident when the bird was in flight. We again passed by this area at about 1700, and the phalarope was still in the same general area. This is the first record of a Red-Necked Phalarope in Knox County, although there are several records from some adjacent counties.

CHARLES P. NICHOLSON, Div. of Land and Economic Resources, Tennessee Valley Authority, Norris, TN 37828. Accepted 20 February, 1985.

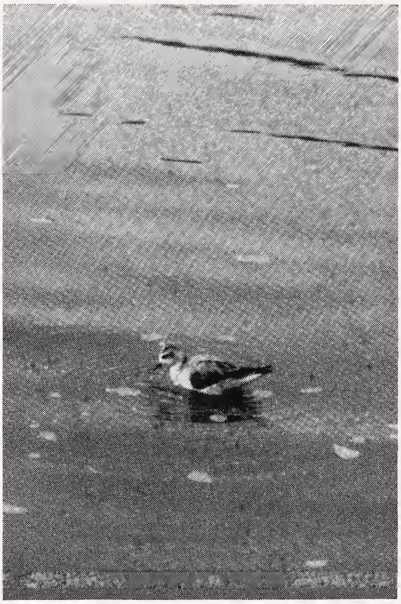


FIGURE 1. Red-necked Phalarope at Knoxville, Tennessee, 21 September 1982. Photo by Charles P. Nicholson

GLAUCOUS GULL AT PARIS LANDING, TENNESSEE — On 12 January, 1984, I observed a Glaucous Gull (*Larus hyperboreus*) at Paris Landing State Park, Henry County, Tennessee. The bird appeared to be in second-winter plumage, and was identified by its almost pure white back, light mottling on the belly and flanks, white wings, and pinkish bill with a dark tip. The bird was with several Ring-billed (*L. delawarensis*) and Herring Gulls (*L. argentatus*), and appeared to be close to the size of a Herring Gull. I first observed this bird while it was standing on an island in Kentucky Lake about 150 m from the beach area. During the time I watched it, I saw it fly overhead several times, and land on the water as close as 50 m from me. Although I alerted other birders to the gull's presence, it was apparently not observed on later dates. Four days before this observation, I had observed 4 Glaucuous Gulls at St. Louis, Missouri.

This is the third documented record of a Glaucous Gull in Tennessee. Previous records are from Old Hickory Lake, 18 January to 2 February, 1969 (*Migrant* 40:12-13, 1969), and from Fort Loudon Lake, 7 to 24 March, 1971 (*Migrant* 43:21, 1972). A "white-winged" gull present on Chickamauga Lake during the winter of 1979 (*Migrant* 50:45, 1979) was thought by some observers to be a Glaucous Gull, but its identification has yet to be resolved.

DONALD W. BLUNK, Rt. 2, Box 788, Dover, TN 37058. Accepted 20 April, 1985.

IMMATURE VIRGINIA RAIL OBSERVED IN MAURY COUNTY — Since the Virginia Rail (*Rallus limicola*) is not known to breed in the Central Plateau and Basin Region of Tennessee, the following observation of an immature of this species seen at the Monsanto Chemical Company settling ponds in Maury County is put on record. On the afternoon of 3 June, 1984, we were observing birds near the marsh at the southwest end of Pond #2, known among local birders as the "Rail Pond", and located 9.8 km NW of the center of Columbia, when two adult Virginia Rails appeared. With them was a smaller rail about two-thirds the size of the adults. It appeared to have no down in its plumage, and it was much duller in coloration than the adults. Because of the long and slender bill, this rail resembled no other rail known to occur in the region, including Sora (*Porzana carolina*), Black Rail (*Laterallus jamaicensis*), and Yellow Rail (*Coturnicops noveboracensis*); its diminutive size precluded King Rail (*Rallus elegans*). Thus, it was presumed to be an immature Virginia Rail.

We observed this immature rail for about 15 minutes as it foraged independently near the adults. During most of this time the birds remained 7 to 10 meters away, while we observed them with 8x40 Bushnell binoculars. Because access to the marsh is restricted, a search for a nest could not be undertaken. However, the extensive (one hectare or more) cattail marsh in which these birds were seen represents the preferred nesting habitat of this species (Pough, 1951, Audubon Water Bird Guide, Doubleday & Co.). Although Virginia Rails have been seen or heard at Monsanto nearly every month of the year, including the summer months, no previous evidence of breeding has been detected, nor is there breeding evidence for any other site in middle Tennessee. Therefore, the sighting of an immature Virginia Rail at Monsanto establishes this species as at least a provisional breeding bird in the region.

O. BEDFORD LOCHRIDGE and ANNE R. LOCHRIDGE, 914 Woldridge Dr., Columbia, TN 38401. Accepted 9 May, 1985.

SEPTEMBER 1984 TOWER KILL IN KNOX COUNTY, TENNESSEE — On 30 September, 1984, 749 birds of 34 species were found dead around the base of television towers on Sharp's Ridge and Zachary Ridge, Knox County, Tennessee. A total of 393 birds were found under the old WBIR-TV tower on Zachary Ridge, and 368 birds were found on Sharp's Ridge. Although there are 3 tall towers on Sharp's Ridge, 95 percent of the birds were under the WATE-TV tower, the westernmost and second tallest of the three towers. The condition of many of the birds indicated that birds were killed on both the nights of 28-29 and 29-30 September. Because only a limited amount of cleared land exists around the towers on Sharp's and Zachary Ridges, the actual number of birds killed during this period was probably much higher than that reported here.

During the period of 28-30 September, skies at Knoxville were overcast, temperatures in the 50's and 60's° F, and a trace of rain fell each day until after daybreak on 30 September, when heavy rains began. Surface winds were from the N to NE during the nights of 28-29 and 29-30 September, and dead birds were concentrated to the SW of the WATE-TV tower.

Following is a list of the species collected under the towers. The numbers of individuals collected on Sharp's Ridge appear first, followed by the number collected on Zachary Ridge. Yellow-bellied Flycatcher 0-1; House Wren 1-3; Marsh Wren 0-2; Swainson's Thrush 6-37; Wood Thrush 15-21; Gray Catbird 17-13; White-eyed Vireo 4-3; Solitary Vireo 0-1; Yellow-throated Vireo 3-10; Philadelphia Vireo 7-8; Red-eyed Vireo 36-33; Blue-winged Warbler 0-1; Tennessee Warbler 9-26; Nashville Warbler 0-2; Chestnut-sided Warbler 9-10; Magnolia Warbler 4-16; Cape May Warbler 0-1; Black-throated Blue Warbler 1-7; Black-throated Green Warbler 0-2; Blackburnian Warbler 16-10; Prairie Warbler 0-1; Palm Warbler 3-6; Bay-breasted Warbler 6-13; Black-and-white Warbler 20-23; American Redstart 1-12; Worm-eating Warbler 4-6; Ovenbird 164-74; Northern Waterthrush 2-1; Kentucky Warbler 2-6; Common Yellowthroat 7-21; Hooded Warbler 5-3; Yellow-breasted Chat 4-1; Scarlet Tanager 3-2; Rose-breasted Grosbeak 17-5.

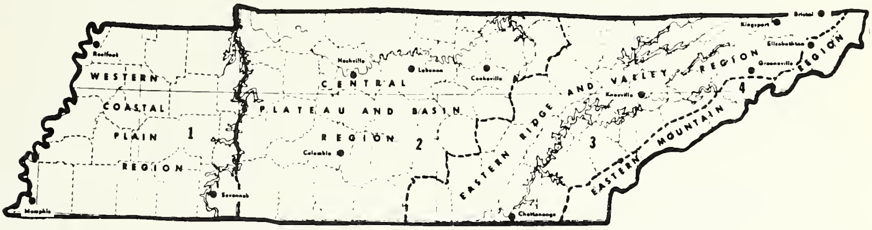
In addition to the species listed above, 1 badly decomposed Whip-poor-will was found on the road near the WATE-TV tower on Sharp's Ridge. This bird appeared to have died prior to the night of 28-29 September; I do not know if it was hit by a car or was a tower kill. Nightjars are rarely reported from tower kill collections. (*in lit.*).

This is the first large tower kill reported from the Knoxville area since 29-30 September 1979 (Turner and Davis, *Migrant* 51:27-29, 1980). Although towers in the Knoxville area are not systematically checked for kills, Sharp's Ridge is visited often enough by birders during the fall to detect a large kill with in a few days of its occurrence.

I appreciate the assitance of J. B. Owen, who collected the birds at the old WBIR-TV tower, and of J. C. Howell, who helped identify the WBIR-TV birds.

CHARLES P. NICHOLSON, P. O. Box 402, Norris, TN 37828. Accepted 2 April, 1985.

THE SEASON



SUMMER: 1 JUNE — 31 JULY 1984

Temperatures were near normal this period, and rainfall near normal to above normal, especially in July.

As is usually the case during the summer season report, new nesting locations for several species were reported. Osprey nested at Duck River Unit, Tennessee National Wildlife Refuge, the first middle Tennessee nesting of this species in recent memory. Another Bald Eagle nest was also reported from middle Tennessee, this one at Land-Between-the-Lakes. The first middle Tennessee evidence of nesting Virginia Rails was reported from near Columbia, and fledgling House Finches were reported for the first time from Nashville. Bank Swallows were reported from new locations — nesting in an ash pile at Kingston, a pair at a nest hole in Blount County, and an inactive colony in Cannon County. An active colony was also reported in a zinc mine tailings pile in Knox County, a site used in the 1950's, and several colonies were reported along the Mississippi River.

Readers are encouraged to note the Breeding Bird Survey results compiled for the Central Plateau and Basin region. This is the first time such a thorough analysis has been presented in The Season. The previous severe winter appears to have caused some reduction in numbers of Carolina Wrens and Eastern Bluebirds in middle Tennessee, but not of the magnitude of declines in the late 1970's. There was no apparent reduction of Carolina Wren numbers in the Knoxville area; insufficient data is presented to make comparisons with other parts of the state. — CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION — Two pairs of Black-necked Stilts nested at the Ensley Sewage Lagoons this season. A single pair nested there in 1982. Shorebirds, the majority of which were Pectoral and Least Sandpipers, were also found at Ensley in numbers from several hundred up to about 2000.

Anhinga – Stork: Anhinga: 27-29 Jun (1) REL (CHB, LLC, SCF). Least Bittern: 2 Jul (2) REL (RCS). Yellow-crowned Night-Heron: 2 active nests, down from 26 nests in 1983, McCorkle Road site, MEM; 12+ active nests, Hatchie River near Boliver; 24 Active nests, decline from 68 in 1980, Eagle Lake, Shelby Forest State Park; 2 active nests, decline from 14 nests in 1980, Forked Deer River, Madison Co. (Ken Garner, BPP). Cattle Egret: 25 Jun (140) east of Fulton, LDC (BBC, LCC). White Ibis: 23 Jul (2) Phillippy Pits, LKC (RCS). WOOD STORK: 14 Jun (1) REL (AIS); first Reelfoot report since 1954 report of 50+ at Walnut Log.

Moorhen - Tern: Common Moorhen: 2 Jul (6) REL (RCS). Black-necked Stilt: 8 Jul (4 ad) (JRW), 14 Jul (4 ad, 6 y) (DPB, MGW, JRW), 22 Jul (4 ad, 5 y) (JRW), 29 Jul (6 ad, 5 y) (MGW, JRW), 18 Aug (2 ad, 3 y) ESL (JRW). Western Sandpiper: 14 Jul (1) (DPB, MGW, JRW), 22 Jul (2) ESL (JRW). Pectoral Sandpiper: 8 Jul (8), 29 Jul (750) ESL (MGW, JRW). Least Tern: 2 Jul (1 nest with 3 eggs) in field 1 mile from river, Tiptonville, LKC (RCS); 3 Jul (99 y banded, 125 adults in air) Mile 795, MSR, LDC (RAG, PAH, Roberta A. Hylton, MGW); 10 Jul (8 y banded, 125 adults in air) Mile 794, MSR, LDC (RPF, MGW); 12 Jul (56 y banded, 120+ adults in air) Island 13, LKC (PAH, MGW *et al.*).

Chuck-will's-widow - Siskin: Chuck-will's-widow/Whip-poor-will: 7 Jun (11.1 mi, 30 stops; 16 CWW at 13 stops, 24 WPW at 15 stops) 4 mi E of Bolivar to Oak Grove; 7 Jun (14.5 mi, 33 stops; 18 CWW at 15 stops, 24 WPM at 19 stops) Pine Top-Silerton-Fire Tower Roads, from US 64 to TN 100; 7 Jun (6.0 mi, 13 stops, 19 CWW at 10 stops, 4 WPW at 4 stops) W of TN 18 and N of TN 100, all 7 June sites in Hardeman Co.; 14 Jun (9.4 mi, 22 stops, 6 CWW at 5 stops, 25 WPW at 15 stops) NW BNC (BBC, LCC). Black-billed Cuckoo: 15 Jun (1) 2 mi NE of Camden, not found 3 Jul (BBC, LCC). E. Phoebe: 15 Jun (1 and nest with 5 eggs) N.B. Forrest Park (BBC, LCC). Bank Swallow: colonies observed on 9 Jul along MSR at 400 y S of TN 78 (76 holes, 15-20 birds), Mile 780, Arkansas side (150 holes, 180 birds), Mile 778, LDC (54 holes, 6 birds), Mile 773, LDC (52 holes, no birds), Hatchie River, 0.5 mi from MSR, LDC (12 holes, no birds), Chickasaw Bluff #2, LDC (75 holes, 1 bird), up river from Chickasaw Bluff #2 (350 holes, 1 bird) (BBC, LCC, RAG). Bewick's Wren: 15 Jun (1) 2 mi NE of Camden, 3 Jul (1) 3 mi NE of Camden, BNC (BBC, LCC). House Wren: 25 Jun (1 singing) Driver Bar, Arkansas/TN at Fort Pillow Park, LDC (BBC, LCC). Cedar Waxwing: 15 Jun (3), 3 Jul (1) Big Sandy, BNC (BBC, LCC). Yellow Warbler: 3 Jul (1) Dunville jetty, BNC (BBC, LCC). Black-and-White Warbler: now rare where formerly present in West Tennessee (BBC). Swainson's Warbler: 2 Jul (1) Cane Creek, 5 mi W of Clarksburg, CLC (BBC, LCC). Ovenbird: 14 Jun (1) SW corner, CLC (BBC, LCC). Scarlet Tanager: 25 Jun (1) FPP, 14 Jun & 2 Jul (1) SW CLC, 15 Jun & 3 Jul (13) BNC (BBC, LCC). Song Sparrow: 25 Jun (1) LKC (RCS); 21 Jul (2 songs) ESL (BBC, LCC). Pine Siskin: 6 Jun (1 at feeder after long absence) MEM (Jo L. Levy).

Locations: BNC — Benton Co.; CLC — Carroll Co.; ESL — Ensley Sewage Lagoons, Shelby Co.; LDC — Lauderdale Co.; LKC — Lake Co.; MEM — Memphis; MSR — Mississippi River; REL — Reelfoot Lake.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION—Mostly moderate temperatures prevailed this summer, and rainfall was not much higher than normal in June (¾'' excess in Nashville), though somewhat above normal in July (2.5'' excess). Perhaps as a result, breeding activity of the birds in the region was generally successful, and some exciting breeding data were obtained. At least one new breeding species for the Nashville Area was documented, while another species new to the breeding avifauna of the region was provisionally established. Furthermore, the breeding Bald Eagle population in middle Tennessee increased from one to two pairs in 1984, and Ospreys returned as a breeding species after a lengthy hiatus as a nonbreeder. Herons, swallows, wrens, and finches were also favored with breeding success. The following account offers details on these and other species, almost everything, in fact, that on might want to know about the breeding birds of middle Tennessee, including what chats and eagle chicks eat during the nesting season.

The 15 Breeding Bird Surveys (BBS) conducted in the region provided evidence that the summer of 1984 was a good one for avian reproduction. One new species was added to the 117 previously recorded on these censuses, while the 98 species observed in 1984 represent the second-highest cumulative total in the 19-year history of the BBS's, indicating that species diversity in the region remains in good shape. Furthermore, 10 species were recorded on these surveys in higher cumulative numbers than ever before: Wood Duck (17), Sharp-shinned Hawk (2), Red-shouldered Hawk (6), Red-headed Woodpecker (16), Hairy Woodpecker (14), Blue-gray Gnatcatcher (93), Yellow-throated Vireo (26), Yellow-throated Warbler (18), Northern Oriole (5), and House Sparrow (522). All but perhaps the last of these best ever totals are certainly encouraging, as are the steadily increasing numbers of some species breeding in the region (Table 1). Although the Canada Goose obviously had considerable assistance from man to account for its recent increase, the other species—White-breasted Nuthatch, Blue-gray Gnatcatcher, American Robin, Brown Thrasher, Pine Warbler, Blue Grosbeak, and Song Sparrow — are increasing without direct human intervention on their behalf. Also encouraging is the increase in Carolina Wren, Eastern Bluebird, and Field Sparrow populations from low levels caused by the "hard" winter of 1976-1977 and 1977-1978 (Table 2). Although it is not prudent to express too much optimism about the precarious Bewick's Wren population in the region, it, too, was affected by hard winters in the late 1970's and may be recovering somewhat (Table 2). The robin also experienced slight decline during the hard winters but has increased in numbers since then (Table 1).

TABLE 1. Species on Middle Tennessee Breeding Bird Surveys Undergoing Overall Increase in Numbers

	Year																		
Species	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
Canada Goose	0	0	0	0	0	0	0	0	2	0	0	0	31	7	22	6	42	19	29
White-breasted Nuthatch	4	1	3	6	10	9	6	4	10	4	11	9	15	18	18	22	25	23	13
Blue-gray Gnatcatcher	54	71	55	51	55	69	71	51	61	48	45	45	65	83	77	79	76	81	93
American Robin	67	94	92	138	155	101	178	169	157	204	223	176	190	206	262	289	229	227	286
Brown Thrasher	68	91	86	98	91	91	91	100	91	103	82	86	115	119	106	119	116	117	108
Pine Warbler	0	0	0	0	0	0	0	0	1	1	1	1	2	1	2	3	3	5	5
Blue Grosbeak	14	11	25	25	31	40	51	34	38	47	58	57	46	47	37	80	72	52	62
Song Sparrow	2	0	0	0	2	2	1	1	1	1	4	2	9	9	8	14	19	23	21

TABLE 2. Species on Middle Tennessee Breeding Bird Surveys Showing Recovery from "Hard" Winters

	Year																		
												*	*						*
Species	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
Carolina Wren	86	100	104	74	98	93	159	119	163	190	209	64	44	51	68	75	98	158	121
Bewick's Wren	8	20	21	11	21	10	11	17	12	11	9	1	1	2	1	1	2	5	6
Eastern Bluebird	179	170	167	134	123	185	242	179	145	163	170	131	42	53	70	108	137	145	132
Field Sparrow	369	535	307	354	342	337	322	308	292	279	277	266	181	206	187	314	263	310	341

* Breeding Bird Survey following a "hard" winter.

TABLE 3. Species on Middle Tennessee Breeding Bird Surveys Showing Overall Decline in Numbers

	Year																		
Species	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
Northern Bobwhite	486	589	596	597	476	489	566	476	528	489	505	504	496	496	442	401	391	357	392
Whip-poor-will	31	16	34	23	14	29	15	11	7	12	15	9	16	8	11	9	11	11	7
Barn Swallow	546	480	584	581	524	497	527	562	633	484	564	546	540	632	579	442	407	336	352
Loggerhead Shrike	55	77	82	57	52	54	73	46	62	33	29	44	46	46	35	21	22	21	19
Yellow-breasted Chat	400	392	325	433	320	351	331	274	265	270	232	192	236	216	217	228	199	182	189
Dickcissel	19	45	22	18	20	43	35	23	10	8	9	10	19	8	0	5	4	10	10
Chipping Sparrow	199	210	171	184	161	124	130	107	86	80	118	68	103	90	107	123	86	90	92
Eastern Meadowlark	665	850	692	828	803	902	885	823	844	807	867	779	671	667	700	622	656	663	571

Some less salubrious news resulted from the 1984 BBS's, as indicated by species which were recorded in lowest-ever numbers: Black Vulture (1, but see species account), Loggerhead Shrike (19), Grasshopper Sparrow (4), Eastern Meadowlark (571), and Common Grackle (790). Perhaps we might not worry unduly over the last of these, but for the others concern is warranted, especially for the shrike and meadowlark, which are among 8 species breeding in the region that have undergone overall reduction in numbers since the BBS's were instituted in 1966 (Table 3). Some of these—Whip-poor-will, Barn Swallow, Yellow-breasted Chat, and Dickcissel—are predominantly neotropical migrants, which have been hard hit in recent years. However, the decline in populations of Northern Bobwhite, Loggerhead Shrike, Chipping Sparrow, and Eastern Meadowlark is less easy to elucidate; as they are all pasture-related species, we might surmise that the current agricultural practices in the region are inimical to their well-being. Certainly the longterm decline in their numbers is cause for concern. All 8 declining species need careful monitoring in the years ahead. Other species besides those mentioned above may also be declining; however, since their numbers on the BBS's are so low as to render analysis of them a form of statistical legerdemain, only continued vigilance on the part of regional observers will reveal their longterm status.

Grebe - Night-Heron: Pied-billed Grebe: early June (ad with y) RDL (Cathy Shaw, m. ob.), few regional breeding records; 21 Jun (1) OHD (CGD); through end of Jun (2 ad) flooded field in RUC (TJW); 30 Jul (1) MC (RJM). American Bittern: 24 Jun (1) LEP (DTC, JPC), few NA summer records. Least Bittern: 28 May (1 calling), 4 Jul (1), 23 Jul (1) MOP (ARL, OBL, SJS, BHS), probably breeding bird(s). Great Blue Heron: 12 Apr (170 active nests) DRU (Randy Cook, TWRA); 29 May (132 active nests) AEDC ponds, CFC (BPP); 2 Jul (1) MC (HEP); 15 Jul (14) LEP (CGD). Great Egret: 9 Jun (2) EWP (DFV, SDB); 17 Jul (1) CFC (ELR); 19 Jul (15), 25 Jul (25) DRU (CGD, SJS, BHS), all but the first sighting represent post-breeding dispersal. Little Blue Heron: 11-12 Jun (nest with 3 y, all of which died when nest was abandoned) Houston County (Audrey Grant, Wesley James); 2 and 15 Jul (1 imm) MC (DFV, CGD); 15 Jul (1) LEP (CGD); 19 Jul (5 ad, 20 imm) DRU (CGD); 29 Jul (10 ad, 10 imm) CCNWR (SJS, BHS). Green-backed Heron: 24 Jun (12) (DTC, JPC); "noticeably fewer at MOP than in past" (ARL). Black-crowned Night-Heron: 30 May (370 nests based on flightline survey) Bordeaux Heronry, DVC (BPP); 24 Jun (3) SUC (DTC, JPC); during season (6) PPL, RUC (ALH, RVM). Yellow-crowned Night-Heron: 30 May (nest with 3 y) Mill Creek, DVC (BPP); 24 Jul (1 imm) EWP (DFV); all summer (4 ad, several y) MC (DFV).

Ducks: Wood Duck: 24 Jun (20) LEP (DTC, JPC); 29 Jul (pair with y) MC (DFV). Northern Pintail: 19 Jul (2) DRU (CGD), limited summer records. Blue-winged Teal: 7 Jun (1) MOP (SJS, BHS); 24 Jun (1) LEP (DTC, JPC); 29 Jun (1) mouth of Brush Creek, CHC (HEP). Lesser Scaup: early June (pair) RDL (DJS, m.ob.). Red-breasted Merganser: 27 Jun (1 female) OHD (Lee F. Kramer).

Diurnal Raptors: Black Vulture: 7 Jun (2 ad, 2 downy y in nest cave) Gordonsville area, SMC (PBH); 21 Jun (nest with 6 week old chick) PWP (DFV); 15 Jul (40) GSP (CGD). **OSPREY:** the first documented nesting of this species in the region in several decades occurred at DRU, where a pair was observed nest-building in April; 3 y hatched in May and fledged in early August (*fide* Carrell L. Ryan, USFWS); birds hacked at Woods Reservoir, Franklin County (Caroline Franklin), Clay County (Thomas Mabry), PPL, RUD (Donald Perry); 15 Jul (1 red-banded ad) GSP (CGD), origin not determined; 28 Jul (1) Long Hunter S.P., (DVC) (RVM). **BALD EAGLE:** pair nesting on Westvaco land near CCNWR in 1983 returned in 1984 and successfully fledged one y in late June or early July (2 y became entangled in baling wire in the nest and died); another pair, including a 3-year-old female hacked in Tennessee in 1981, nested in the LBL; it produced one y, which was fed partly on turtles and fledged successfully (*fide* Tony Campbell); hacking results: 2 fledged 25 Jul and 2 others 3 Aug, all at LBL; also 2 rehabilitated ad were released (*fide* Robert M. Hatcher). Sharp-shinned Hawk: 2 Jun (1) Pond Creek BBS, CHC (John O. Ellis); 11 Jun (1) BAH (RWS); 17 Jun (1) Glen BBS, GYC/WRC (DRJ). Cooper's Hawk: 24 March-24 Jun (nest, 4 y fledged on last date) BAS (KAG, ATT); 6 Jun (1 ad) Peytonsville BBS, WMC (SJS); 9 Jun (pair with prey) Union Hill BBS, Macon County (CPN, RWS, Thomas S. Patrick); accipiters, probably of this species, were at LEF on 19 Jul (SJS) and MOP on 23 Jul (SJS, BHS). Broad-winged Hawk: 3 on 2 BBS's (about average); also reported from BAH (RWS), BAS, (KAG), LEF (SJS), and PWP (DFV).

Rail-Gull: **VIRGINIA RAIL:** 3 Jun (2 ad, 1 y) MOP (ARL, OBL), provisional evidence of first regional breeding; details in *Migrant* (55:85, 1984). Common Moorhen: 15 and 23 Jul (1 ad) MOP (SJS, BHS), possibly breeding, as imm were sighted at MOP in fall. American Coot: 13 Jul (1) PWP (DFV); 19 Jul (1) DRU (CGD); 29 Jun (1) near Johntown, TRC (CPN); all season (1 crippled ad) MC (DFV); also, sometime during season an ad with y was seen on Old Hickory L. (Katherine C. Vogt). Spotted Sandpiper: all summer (2 ad, 3 nests with 4 eggs each, but no y seen) MC (DFV); through mid-June (1) RDL (*fide* DFV); 2 Jun (1) south of Franklin, WMC (SJS); 7 Jun, 23 Jul (1) MOP (SJS, BHS); 15, 22 Jul (1) GSP (CGD); 19 Jul (1) DRU (CGD); all but the first record probably represent migrants; mention (without details) of the nesting of this species in LWC was received (DJS). American Woodcock: 5 Jun (1) EWP (DFV, SDB, Charles E. Farrell); 6 Jun (1) Peytonsville BBS, WMC (SJS), first regional BBS record. Ring-billed Gull: 21 Jun (4) OHD (CGD), summering becoming more regular.

Cuckoo-Flycatcher: Black-billed Cuckoo: 4 Jul (pair copulating, one calling) MOP (BHS, SJS), only report, nesting in region is infrequent. Common Barn-Owl: 3 hacked in RUC (*fide* Robert M. Hatcher), no other details. Great Horned Owl: 1 albino, injured in Bedford County, taken to Cumberland Bird Rehabilitation Foundation, WLC (Kevin Schutt). Common Nighthawk: 7 Jul (200) Harding Mall, DVC (RJM), early flocking. Red-headed Woodpecker: by mid-May most of the large influx of wintering birds had departed, quashing speculation that they might breed; 4 Jun (1) CFC (FNM); 4 Jun (pair) Petersburg BBS, Marshall County (DFV); 6 Jun (ad) Peytonsville BBS, WMC (SJS); 13 Jun (1 ad) Chinkapin Hill, WMC (PBH); 19 Jun (1 ad) PWP (DFV); 21 Jun (1) OHD (CGD); 1 Jul (1 ad), 29 Jul (pair) MC (DFV); 4 Aug (1 imm) MOP (PBH, SJS, Larry D. Raye); again, no data on the CHC population available. Willow Flycatcher: all summer (4 pairs, 1 nest with 3 eggs, soon discovered empty, however) MC (DFV); all summer (1 singing male, later several other birds) MOP (SJS, BHS); 3-10 Jun (1 singing male) west of Dover, SWC (DWB); reported without details from ACA (CGD). Scissor-tailed Flycatcher: all summer erratically (at least 1 ad) Thompson Lane, RUC (ALH, TJW, RVM); imm seen in fall.

Swallow-Shrike: Tree Swallow: 15-16 May (2 ad on territory) and 29 Jun (2 ad, 3 fledglings) Dixon Springs, SMC (CPN); 26 May (7 ad, some entering nest holes), 15 Jul (3 ad, 9 fledglings) MOP (SJS, BHS); 28 May (30+) DRU (SJS, BHS), breeding birds probably represented; 22 Jul (200) GSP (CGD). Northern Rough-winged Swallow: 22 Jul (200) GSP (CGD). Bank Swallow: 25 May (78 inactive nest holes) near Reedyville, CNC (RPF); 3 Jun (3) MOP (ARL, OBL); 22 Jul (100) GSP (CGD); 25 Jul (415) Bledsoe Creek S.P., SUC (DTC, JPC), autumn mustering. Cliff Swallow: 28 May (6+) Hwy 50 bridge over Duck R., HIC (SJS, BHS); 29 Jun (30 active nests with y) Sam's Creek, CHC (HEP); 3 Jul (125 nests with most young flying) Hwy 49 bridge over Harpeth R., CHC (HEP); CGD estimated that 1000+ nests were active in ACA. Bewick's Wren: nest found NW on Clarksville on 16 Jun (DWB), and 1 with 4 eggs was E of Columbia on 27 Jul (Nancy A. Beyer); singing males were reported in several counties: 4 in E WMC (SJS), 2 in SUC (DTC, JPC), 2 in WLC (TJW), 1 in CNC (RPF), and 1 in W MTC (PBH); other reports: pair in Loretto, LWC (DJS), 2 near Johnson's L., LWC (DJS), family group of 4 on Peytonsville BBS, WMC (SJS), and 2 S of Murfreesboro (TJW); however, for the first time in 25 years none at Crawfords in GAL (competition from House Wren?), nor at McMillans in Lascassas, RUC, where normally seen; overall, a good year. House Wren: all season (nest, 1 male, 2 females in attendance) GAL (DTC, JPC) at least seven sites with singing and/or nesting birds in Nashville, including at Oakmont Circle where nest-building was noted 17 May, eggs in nest 20 May, and y being fed 1-5 Jun (HEP); the House Wren clearly remains a predominantly urban species in the region. Eastern Bluebird: nestbox project results: 101 fledged (compared to 60 in 1983, 30 in 1982) from 20 boxes in WLC (Martin Smith, *fide* RVM), 38 from 40 boxes in Warner Parks, DVC (SDB), 20 from 11 boxes in WMC (SJS), and 23 from unknown number of boxes in Nashville (ATT); no data were available for the large project in CHC. Cedar Waxwing: 25 May (1 flying inexpertly, possibly a y bird) CFC (ELR), few regional breeding records. Loggerhead Shrike: all summer (3 nesting pairs, 5 nests) Warner Parks, DVC (DFV); all summer (1 nesting pair) MC (DFV); see introduction.

Vireo-Dickcissel: Warbling Vireo: 3 on 3 BBS's (about average); also reported from South Harpeth Valley (KAG), RDL (PCH, m.ob.), MOP (ARL, OBL), and DRU (SJS, BHS); surely more widespread than that. Blue-winged Warbler: 12 on 7 BBS's (about average); also reported in June from Warner Parks, DVC (DFV), BAS (KAG), and BAH (RWS), and in late July from MOP (SJS, BHS). Cerulean Warbler: 5 on 4 BBS's (slightly below average); early June (15 singing males) Warner Parks, DVC (DFV), notable concentration. American Redstart: 4 on 3 BBS's (slightly below average); 11 Jun (3 singing males) near Arcott, Clay County (RWS). Yellow-breasted Chat: 28 May (1 eating egg yolk—hard-boiled?—at feeder) Byrdstown, Pickett Co. (Robbie C. Hassler); see introduction. Dickcissel: 28 May (pair, female carrying nest material) near Centerville, HIC (SJS, BHS); 2 Jun (pair) CFC (FNM); 7 Jun (1 singing male, not seen later) MC (DFV); 17 Jun (9) Glen BBS, GYC/WRC (DRJ); 28-29 Jun (1) near Johntown, TRC (CPN); all season (12+) RUC (TJW); all season (3 singing birds) ACA (CGD); 21 Jul (21, including 17 singing males) DRU (SJS, BHS); 29 Jul (5 singing males) CCNWR (SJS, BHS); an encouraging and regionally diverse number of reports, though species is still in longterm decline (see introduction).

Sparrow-Finch: Lark Sparrow: 2 Jun (nest with 4 eggs) Simmons Bluff Rd., WLC (TJW, RVM, m.ob.), nest empty shortly thereafter (TJW). Grasshopper Sparrow: 4 on 3 BBS's (see introduction); 6 May (2) near Rockhouse, TRC (CPN); 4 Jun (2-3) W of Franklin, WMC (SJS); 28-29 Jun (4) near Johntown, TRC (CPN); fewer reports than expected. Song Sparrow: 28 Apr (1 carrying nest material) MOP (OBL), seen same site 28 May (SJS, BHS); 24 Jun (1 singing) LEP (DTC, JPC); in July (4 singing) GSP (DTC, JPC); 21 Jul (1 singing) DRU (SJS, BHS), site later bulldozed; all season (30+ pairs) MC (DFV); BBS reports were concentrated in eastern portion of region, as species continues its expansion. White-throated Sparrow: 4 Jul (1 singing) Nashville (Ed Gleaves), few NA summer records. Northern (''Baltimore'') Oriole: 5 on 4 BBS's (see introduction); 9 Jun (1) Buffalo Fork, Cordell Hull L., SMC (RPF). House Finch: 18 Jun (male feeding brown bird which displayed wing-fluttering behavior), 22 Jul (pair feeding 3 y) Belmont Blvd., DVC (DFV); all summer (4) Galen Lane, DVC (Frances Abernathy); first NA breeding record.

Locations: ACA — Ashland City Area, Cheatman Co.; BAH — Barnes Hollow, Macedonia Community, Putnam Co.; BAS — Basin Spring, Williamson Co.; CCNWR — Cross Creeks Nat. Widl. Refuge, Stewart Co.; CFC — Coffee Co.; CHC — Cheatham Co.; CNC — Cannon Co.; DRU — Duck River Unit, Tenessee Nat. Wild. Refuge, Humphreys Co.; DVC — Davidson Co.; EWP — Edwin Warner Park, Davidson, Co.; GAL — Gallatin, Sumner Co.; GSP — Gallatin Steam Plant, Sumner Co.; GYC — Grundy Co.; HIC — Hickman Co.; LBL — Land-Between-the-Lakes, Stewart, Co.; LEF — Leiper's Fork, Williamson Co.; LEP — Lewis Pond, Sumner Co.; LWC — Lawrence Co.; MC — Metro Center, Davidson, Co.; MOP — Monsanto Ponds, Maury Co.; MTC — Montgomery Co.; MUC — Maury Co.; NA — Nashville Area (includes all of Davidson Co. and parts of 7 surrounding counties); OHD — Old Hickory Dam, Davidson Co.; PPL — Percy Priest Lake (in Davidson, Rutherford, and Wilson Counties); PWP — Percy Warner Park, Davidson Co.; RUC — Rutherford Co.; SMC — Smith Co.; SUC — Sumner Co.; SWC — Stewart Co.; TRC — Trousdale Co.; WLC — Wilson Co.; WMC — Williamson Co.; WRC — Warren Co.

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EASTERN RIDGE AND VALLEY REGION—All areas reported a normal period with no unusual conditions or weather patterns noted. However, there were several noteworthy observations that will be touched on in this introduction. Of special interest was the late July invasion of White Ibis into the area. This was the first observation of the species since 1981 and signaled the largest movement ever recorded in the region other than a flock of 25 noted flying over Lookout Valley near the Tennessee/Georgia line on 22 July 1977.

The sighting of 44 Ring-billed Gulls at Cherokee Dam on 4 June certainly represented a large number of gulls this late in the migration period. Nesting Tree Swallows were again reported this breeding season, but probably the most noteworthy event for the period was the confirmation of Bank Swallows nesting at both Mascot and the Kingston Steam Plant. In Knox County, Bank Swallows were recorded nesting in the 1950's and have been sporadic nesters at Austin Springs from 1969 to as recently as 1980.

All reports of summering Loggerhead Shrikes are included in this report and future sightings should be forwarded so that we can establish their relative abundance in the region. Reports continue to be received on summering House Finches as they establish themselves throughout the region. Finally, note the date of the last Pine Siskins lingering from last winter's invasion—8 June !

Grebe-Hawk: Pied-billed Grebe: 17 Jul (1) Nickajack Dam (CPN). Double-crested Cormorant: 13 Jul (2) WBL (WKJ). Great Egret: 19 Jun (1) Cherokee L. (Marcia L. Davis, CPN); 21 Jun (1) HRA (WKJ, BPP); 2-31 Jul (1-3) SAB (KHD, LHD); 18 Jul (1) NRL (JCH); 26-31 Jul (2-3) AUS (LHTOS); 21-31 Jul (1-8) HRA (KHD, LHD). Little Blue Heron; 14 Jul (1) SOD (PDR *et al.*); 15-31 Jul (2-3) SAB (KHD, LHD). Black-crowned Night-Heron: 4-26 Jul (1-3) AUS (LHTOS). **WHITE IBIS:** 10-15 Jul—at least 1 ad and 4 imm present Poe Branch area, SOD (RJH); 15-31 Jul (1 imm) Clinton (W.H. Redmond, *fide* CPN); 31 Jul (8 imm) Harrison (A. Boyd Sharp) — these sightings were the first of a heavy invasion which will be reported on in the next period. Osprey: 5 nests down on WBL produced 12 young, down from 7 nests and 15 young in 1983 (T. Ed Beddow). Sharp-shinned Hawk: 15 Jul (1) JEC (JAK); 29 Jul (1) JNC (MD, SG). Cooper's Hawk: 12 Jul (3, family group nesting nearby?) SAB (KHD, LHD); 29 Jul (1) Speedwell, Claiborne Co. (PBH).

Moorhen-Swallow: Common Moorhen: 28, 30 Jul (1 ad) HRA (J.W. Knott, PCH). American Coot: one all period JNC (LHTOS); 23 Jun (2) KSP (KHD, LHD); 27 Jul (1) SAB (KHD, LHD). Semipalmated Plover: 4 Jun (1) AUS (RLK); 22 Jul (2) KSP (ARH). Lesser Yellowlegs: 18 Jul (1) NRL (JCH); 21-22 Jul (1-4) KSP (KHD, LHD, ARH). Spotted Sandpiper: 14-31 Jul (1-23) KSP (KHD, LHD, ARH); 18 Jul (1) NRL (JCH). Semipalmated Sandpiper: 21 Jul (3) KSP (KHD, LHD). Western Sandpiper: 14, 21 Jul (1) KSP (KHD, LHD). Least Sandpiper: 21 Jul (10) KSP (KHD, LHD). Pectoral Sandpiper: 21-22 Jul (8-26) KSP (KHD, LHD, ARH). Stilt Sandpiper: 22 Jul (2) KSP (ARH). Short-billed Dowitcher: 21 Jul (2) KSP (KHD, LHD). Ring-billed Gull: 3 Jul (44) Cherokee Dam, Grainger/Jefferson Co. (JAK). Common Tern: 7 Jul (1) SAB (KHD, LHD). Forster's Tern: 7 Jul (1) SAB (KHD, LHD). Common Barn-Owl: 27 Jun (2 ad, 2 imm about 5-6 weeks old) belfry of church, JNC (Fred J. Alsop III, Pam Demko, Malcolm Jones, Donna Ledford, Cathi Sullivan); 16 Jul (1 road kill) Bristol (GDE). Eastern Screech-Owl: continued in low numbers in the Elizabethton-Johnson City area (LHTOS) (no supporting data received - Editor). Red-headed Woodpecker: pair all period Jonesborough (RLK *et al.*); pair nesting at Seymour (*fide* PDH). Willow Flycatcher: 2-3 pairs all period AUS (LHTOS). Tree Swallow: nesting pair DOL, JEC, 1 Jul (3 y), 15 Jul (3 ad, 4 y) (JAK); 29 Jun (20+) Phipps Bend, Hawkins Co. (WKJ) - appeared to be nesting, new location for the state. **BANK SWALLOW:** colony discovered in zinc mine tailings pile at Mascot, Knox Co., approximately 250 nest holes (PDH), in area where birds are present, but nests not located, in 1983; 23 Jun (at least 65 active nests) large ash pile at KSP (KHD, LHD); Bank Swallows were also noted at this site in 1983, but no nests observed; 22 Jun (1 pair) at hole in bank, Blount Co. (JAK); 15 Jul (400+) JEC (JAK). Cliff Swallow: 22 Jun (4 active nests) new location near Boone L. (RLK).

Wren-Finch: Carolina Wren: no sign of winter mortality in Knoxville area with populations on BBS routes as high as ever (CPN). House Wren: only 2 birds noted singing in Newport and 2 at Maryville (JAK). Sedge Wren: 25-31 Jul (1-2 singing) SAB (KHD, LHD). Cedar Waxwing: present through period in small numbers in Knoxville area (CPN). Loggerhead Shrike: at least 2 pairs in Knoxville area (PHD, CPN); 23 Jun (ad, 3 y) Snow Hill, Hamilton Co. (KHD, LHD); 23 Jun (2) Meigs Co. (KHD, LHD); pair with 3 y in Chattanooga (Robin A. Rudd). Solitary Vireo: 16 Jun (1 singing) Tennessee River Gorge, Signal Mtn. BBS (KHD, LHD). Prothonotary Warbler: no nests located, but 1-4 birds along Watauga R. from 1-22 Jun (LHTOS). Rose-breasted Grosbeak: 30 Jun (male found dead) Ft. Oglethorpe, Ga. (PDR). Blue Grosbeak: increasing in Elizabethton-JNC area after decline in last 2 years (LHTOS). House Finch: no nests reported JNC, but 4 pairs present

(LHTOS); continued increase in Knoxville area, with birds summering in at least 3 new locations (LJF, J.B. Owen). Pine Siskin: 8 Jun (3) Norris (LJF), latest report from last winter's invasion.

Locations: AUS — Austin Springs; DOL — Douglas Lake; HRA — Hiwassee River Area; JEC — Jefferson Co.; JNC — Johnson City; KSP — Kingston Steam Plant, Roane Co.; NRL — Norris Lake; SAB — Savannah Bay; SOD — Soddy-Daisy, Hamilton, Co.; WBL — Watts Bar Lake.

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EASTERN MOUNTAIN REGION—The weather for this period was hot and dry for all of June and the first half of July. The last half of July saw above average rainfall and continued hot temperatures.

Several species appeared to be present in lower than normal numbers during this period, among them the Yellow-billed Cuckoo, Eastern Screech-Owl, and Loggerhead Shrike. Birds that seem to be making modest increases or comebacks include Purple Martin, Cliff Swallow, Blue Grosbeak and Grasshopper Sparrow. Two unusual observations were a Least Bittern found freshly killed in downtown Elizabethton on 5 June, and a Northern Harrier seen on 15 June near Elizabethton.

This report continues to be dominated by reports from the northern portion of the region. Other parts of the region are birded regularly—please send these observations to the compiler.

Bittern-Cuckoo: Least Bittern: 5 Jun (1 found dead) downtown ELI (*fide* GOW). Yellow-crowned Night-Heron: 1-3 throughout period ELI (GDE, GOW). Black Vulture: 7 Jul (1) Erwin (GWS). **NORTHERN HARRIER:** 15 Jun (1) near ELI (Richard Hegler, MD). Sharp-shinned Hawk: 1-2 through period WatL (GDE); 1 irregular in ELI (Harry L. Farthing). Wild Turkey: good nesting results on Holston Mountain near South Holston Lake (*fide* TWRA personnel). Black-billed Cuckoo: 8 Jun (1) Iron Mountain Gap (Glen W. Swafford, MD).

Flycatcher-Shrike: Willow Flycatcher: 5 singing birds located in Carter, Sullivan, and Johnson Counties (RL, GDE, RLK). Alder Flycatcher: 1 Jun-mid Jul (minimum 7 singing males) RNM above 5000 ft. (RLK *et al.*). Olive-sided Flycatcher: 7 Jun (1) North Carolina side of state line, 1 mi. W of Newfound Gap, GSMNP (CPN). Purple Martin: "the best nesting season in several years" (GDE). Cliff Swallow: 14 Jul (3-7 young birds) WatL (GDE). Common Raven: 12 Jun, 9 Jul (1-3) Siam Valley, low elevation (GOW). Black-capped Chickadee: 2 Jul (2) CLD (RLK). Red-breasted Nuthatch: 2 Jul (10+) CLD (RLK); none reported from RNM. Golden-crowned Kinglet: 2 Jul (12, including y being fed) CLD (RLK). Loggerhead Shrike: no reports.

Vireo-Sparrow: Warbling Vireo: 2 Jun (1 pair) ELI, 26 Jun (1 pair) Bluff City (GDE *et al.*). Swainson's Warbler: 7 Jun (1 singing) Shady Valley (RLK). Summer Tanager: 5 Jun (1) Blountville (Helenhill Dove), only report. Blue Grosbeak: at least 8 singing males in ELI area (GDE, RLK, RL). Vesper Sparrow: 12 Jun (1) Round Bald, RNM (RLK). Grasshopper Sparrow: reported from 5 locations in ELI area (RLK, Richard Clarke).

Locations: ELI — Elizabethton; CLD — Clingman's Dome, Great Smoky Mountains Nat. Park; RNM — Roan Mountain; WatL — Watauga Lake.

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OBSERVERS

DPB—Diane P. Bean
SDB—Sandra D. Bivens
DWB—Donald W. Blunk
BBC—Ben B. Coffey, Jr.
LCC—Lula C. Coffey
DTC— Dot T. Crawford
JPC—J. Paul Crawford
MD—Martha Dillenbeck
CGD—C. Gerald Drewry
KHD—Kenneth H. Dubke
LHD—Lillian H. Dubke
SCF—Sue C. Ferguson
RPF—Robert P. Ford
LJF—Linda J. Fowler
SG—Sally Goodin
KAG—Katherine A. Goodpasture
RG—Randy Gray
PBH—Paul B. Hamel
PCH—Paul C. Harris
PDH—Paul D. Hartigan
RJH—R. John Henderson
ALH—Anne L. Hettish
ARH—Audrey R. Hoff
JCH—Joseph C. Howell
DRJ—Daniel R. Jacobson
WKJ—Wesley K. James
RLK—Richard L. Knight
RL—Richard Lewis
ARL—Anne R. Lochridge
RVM—Ruth V. McMillan
m. ob.—many observers
RJM—Rocky J. Milburn
CPN—Charles P. Nicholson
HEP—Henry E. Parmer
BPP—Burline P. Pullin
PDR—Peter D. Robinson
ELR—Erma L. Rogers
DJS—Damien J. Simbeck
RWS—Richard W. Simmers, Jr.
AIS—Arlo I. Smith
BHS—Barbara H. Stedman
SJS—Stephen J. Stedman
RCS—Randy C. Stringer
ATT—Ann T. Tarbell
DFV—David F. Vogt
MGW—Martha G. Waldron
GOW—Gary O. Wallace
JRW—Jeff R. Wilson
TJW—Terry J. Witt
LHTOS—Lee R. Herndon Chapter, TOS

PREPARATION OF COPY FOR PUBLICATION

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IDENTIFICATION: Rare or unusual species identification to be acceptable must be accompanied by verifying evidence. This should include: date, time, light and weather conditions, exact location, habitat, optical equipment, distance, behavior of bird, comparison with other similar species, characteristic markings, experience of observer, other observers verifying observation and reference works consulted.

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FIRST STATE RECORDS AND NESTING OF BLACK-NECKED STILTS AT MEMPHIS, TENNESSEE

Ben B. Coffey, Jr.

On 21 March 1981, David Phillips observed 2 Black-necked Stilts (*Himantopus mexicanus*) in a flooded soybean field in NE Shelby County, near Memphis, Tennessee. On 25 March, he observed 3 stilts at the same location. On 31 March 1981, Richard Pyburn saw 4 stilts in a similar field in SE Shelby County. On 20 July 1982, Lula Coffey and I observed 2 stilts in the Ensley Bottoms in SW Shelby County. These birds raised young and were observed several times during the next 2 months. This paper describes the history of the Ensley Bottoms area, and gives details of stilt observations in 1982, 1983, and 1984.

Downtown Memphis is located on the Fourth Chickasaw Bluff, alongside the Mississippi River. The bluff continues south of downtown, while the river turns west for 4 miles, then south again. It does not turn back east to form a bend, but old channels, such as Horn Lake in Mississippi and Mud Lake on the state line, border this area on the south. Just inside Tennessee is North Lake, once only reached by a difficult walk through the bottoms, but now easily accessible from a levee. These bottoms originally had many trees, nest sites for Mississippi Kites (*Ictinia mississippiensis*), and swampy growth, habitat for Swainson's Warblers (*Limnothlypis swainsonii*). The Illinois Central Gulf Railroad (formerly the Y&MV RR) runs along the foot of the bluff, and at the north end of the bottoms was Ensley station. An upper rail line was later built in the bluff area since the other was subject to seasonal flooding, and Darwin Station was near the state line. This area has been referred to as the Ensley-Darwin Bottoms in *The Migrant*. There is now an Ensley Pumping Station near old Darwin, and the whole area is generally known as the Ensley Bottoms but officially as the Frank C. Pidgeon Industrial Park.

The Allen Steam Plant is at the north end of the bottoms, adjacent to a river chute. Its pond attracts some ducks, shorebirds, gulls and terns. Much of the industrial park is cultivated, but the City of Memphis has gradually constructed waste water treatment facilities there. There are a few sewage lagoons in the SE corner which have been birded often, but without much luck. It was here, however, that Russell Jones found a Garganey (*Anas querquedula*) in April 1978. These ponds are mentioned in Bierly's *Bird Finding in Tennessee*, and he limits "Ensley Bottoms" to this

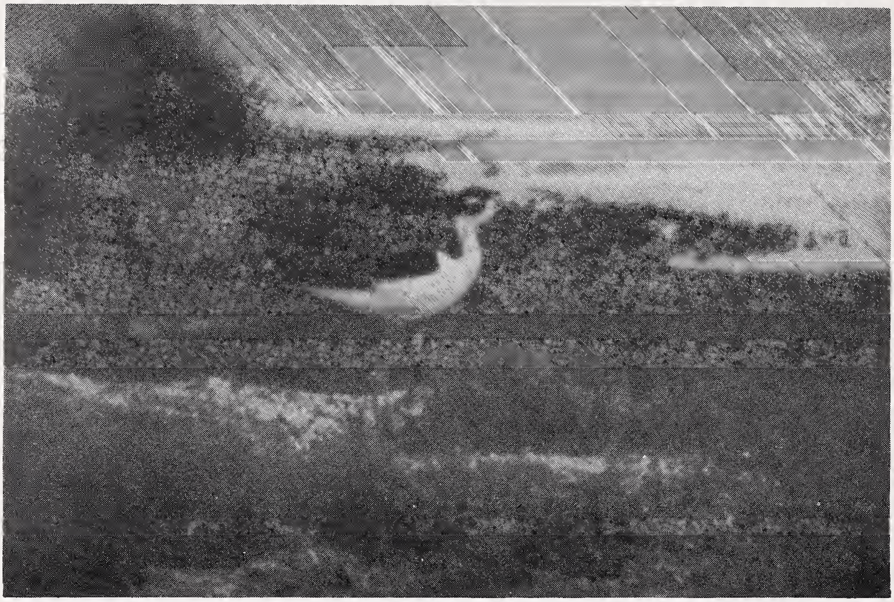


FIGURE 1. Black-necked Stilt at Ensley Bottoms, Memphis, Tennessee. Photo by George R. Payne, Jr.

corner only. The newest sewage lagoons, built in 1979-1981, are in the NE corner of the bottoms. In recent years, appreciable numbers of migrating shorebirds, waders and other species have been reported from this area. The lagoon nearest Plant Road has much floating scum among which the shorebirds (predominantly Pectoral Sandpipers, *Calidris melanotos*) feed and occasionaly get feathers coated and succumb. South of this lagoon was a group of 4 lagoons formed by levees, a half mile square.

The unused west half was a temporary marsh with standing rainwater, producing a rank growth of weeds, predominantly smartweed and a small-flowered composite, along with small clumps of cattails in the wetter south end. Herons, some shorebirds, and a few ducks favored this marsh. In 1983, a few Least Bitterns (*Ixobrychus exilis*) remained through the summer. This marsh dried up in late 1983, and the enclosing levees were removed and the cover bulldozed. Seasonal wet spots remain. The east half had 3 pits; the largest ("No. 3") on the south was the favored area of the stilts. A line of vegetation ran diagonally across it through weedy marsh, and higher ground was behind it. None of it could be walked, so all observations had to be made from levees, often at 150-200 m with telescopes.

On 25 April 1982 we checked the lagoons on our Spring Field Day, then revisited them on 16 May. The next visit was 20 July 1982, when 2 stilts were seen flying from pit No. 3 to the marsh and back, calling loudly. On 1 August, Jeff Wilson noted that the female favored one location and he noted 4 juveniles through his telescope. On 5 August, he saw both adults and 2 young. On the morning of 7 August, we did not see young, but the 2 adults flew by us, scolding noisily. We checked the area the next evening, fearing that something had happened to them, but after a half hour we saw 1 adult and 3 young. The birds were quiet, and were very secretive for the next 3 weeks. The male usually stood at the edge of a row of vegetation 250 m from the spot along the same row of vegetation where the female and 3 immatures were observed through 11 August. On 15 August, 1 immature was seen, and this was the last date the male was seen at his post. On 26 August, an immature was seen occasionally flapping its wings.

On 31 August, an immature bird made 2 short flights, and on 1 September, Carolyn Bullock and others found it at a lagoon to the north. The previously favored area was rapidly becoming dry. On subsequent visits, we found it in the marsh area. On 11 September, on a Memphis TOS chapter field trip, 2 stilts were seen twice, but it was not possible to age them. No stilts were observed on several visits during this period, since the marsh offered good concealment. Although our visits continued through October, the last observation of at least 1 stilt was on 19 September. During all our visits, Lula and I never saw more than 2 grown birds. Four adults were seen on 5 August by Wilson at the steam plant pond, and by the Waldron party in a corner of the marsh. The latter flock was apparently stragglers, as they were observed at a distance of 40 m, feeding undisturbed, and without any of the loud calls or agressive actions noted from the breeding pair.

In 1983, 1 Black-necked Stilt was first seen on 15 April by Jeff Wilson. A single bird was seen by Wilson or others on 16 and 21 April, 1, 6, and 8 May, but not on 9 May or later dates.

In 1984, Black-necked Stilts had young in the same pit as in 1982. None were observed during visits on 29 April, 12 May, 24 June or 1 July by the Coffeys, Wilson *et al.* On 8 July, Lula and I found 4 very noisy stilts. On 14 July and later dates the birds were generally quiet. On 14 July, Jeff Wilson observed 3 young about 3 weeks old with 1 pair of adults, and 3 young about 1 week old with the other adults. The young birds were secretive and not all were seen on subsequent visits. On 12 August, we saw 2 adult-sized immatures for the last time in the original pit. On the same date Dick Whittington found 2 adults in fields south of the sewage complex. The last observation of the stilts during 1984 was on 22 August, when Jeff Wilson saw 2 adults and 3 large immatures in flight.

Acknowledgements—I am especially indebted to Jeff Wilson for his sustained observations at the lagoons and for furnishing his notes, and to other members of our chapter who visited the lagoons while we were birding elsewhere.

672 N. Belvedere, Memphis, TN 38107. Accepted 1 July 1985.

IN MEMORIAM: HARRY CRAWFORD MONK

Ben B. Coffey, Jr.

As a Nashville youngster, I would cross "Centennial Commons" to the playground on the west side of that park and eventually became acquainted with boys that I later associated with Clemson School and Boy Scout Troop 18. At that time, I occasionally saw Harry Monk, who lived just west of the park, and later, for many years, down from Flag Pole Hill where he did much field work. Harry and I attended Hume Fogg High School, and in June 1920, were both in ROTC Infantry at Camp Jackson, South Carolina, but in different companies and unknown to each other. A few years ago, after we learned of the coincidence, Harry sent me a list of the birds at Camp Jackson and pertinent extracts from his diary. As a Tenderfoot Scout of Troop 15, which met at Vanderbilt Gym, I was then ignorant of birds as I explored Camp Jackson fields and woods.

Harry continued his bird study as an older Boy Scout, and joined the Tennessee Ornithological Society in February 1919. He served as secretary from 1920-1925, president in 1926, vice-president, Middle Tennessee from 1928-1929, and as curator in 1930. He made 337 trips during 14 years to compile information for his article "The Water Birds of Radnor Lake" (*J. Tenn. Acad. Sci.* 7:217-232, 1932). He also published "A Study of Roosts of the Bronzed Grackle at Nashville" in the same journal (8:362-370, 1933). Harry joined the Wilson Ornithological Society in 1920, the American Ornithological Union in 1921, and the Tennessee Academy of Science in 1926. During this period, he attended Vanderbilt University. He authored over a dozen notes and articles in *The Migrant*, including an interesting account of "A Kingbird Roost" (17:17-19, 1946), which he studied at Whitthorne for a week in September 1941, while he was stationed at the Wolf Creek Ordinance Plant near Milan. Lt. Monk also served during World War II at Ft. Belvoir, Virginia. His last *Migrant* article was in 1947 "In Memoriam—William Massie Walker, Jr." (18:1-4). Several notes which he published in *The Wilson Bulletin* included one on the Cedar Waxwing breeding in Centennial Park (45:140, 1933). He was also intensely interested in butterflies, published notes on them, and was a member of related organizations.

After he returned from the Army, Harry was briefly Middle Tennessee Vice-president, but later became a partial recluse and member-at-large of the TOS. He continued to study birds, however, and kept a daily diary of his observations from 12 February 1916 through 8 May 1976. He also maintained a species file for all published Tennessee bird records and for many unpublished sightings, and made these files available to interested persons. All of his books, journals, and notes have been deposited in the Public Library at Nashville as a memorial collection established by donors in memory of Mrs. Carrie Mae Weil.

On 3 December 1976, a doctor shocked Harry with the statement that he was a diabetic. Harry could then barely walk, and was confined to a nursing home from then on. Even there, from his top story room, he observed birds and butterflies and perused his various bird periodicals. He died 27 November 1982 at the age of 80. In his own quiet way, Harry contributed very much to our knowledge of the migration and distribution of Middle Tennessee birdlife.

376 North Belvedere, Memphis, TN 38107.

THE 1984 CHRISTMAS BIRD COUNT

Richard L. Knight

This year 142 species were reported from 20 counts in Tennessee. The number of species is a record high, eclipsing last year's record of 140 species. Forster's Tern, found on two counts, appears on a Tennessee CBC for the first time, bringing the total number of species recorded to 208. Other unusual species found this year, with the number of Tennessee CBC records in parentheses, include Red-throated Loon (3), American White Pelican (2), Cattle Egret (2), Broad-winged Hawk (3), Sandhill Crane (4), Greater Yellowlegs—two counts (4), Blue-gray Gnatcatcher (4), and Dickcissel (5). Local compilers are reminded to submit documentation (i.e., written description) for all unusual species.

Temperatures were mild throughout most of the fall and early winter, with one cold snap in early December. Record high temperatures were reached in many areas during the CBC period. Eight counts reported highs in the 70s, and all low temperatures were above freezing. Two counts reported rain.

Besides some of the rarities mentioned above, Green-backed Heron (5 counts), House Wren (5 counts), Palm Warbler (7 counts), and other species lingered later than usual because of the mild weather. Waterfowl numbers were low, partly for the same reason. Double-crested Cormorants were reported from ten counts, an indication of their recovery. Red-headed Woodpeckers were back down from last year's high counts, especially at Memphis and Reelfoot Lake. Blue Jay numbers were considerably lower than the previous two years. Carolina Wrens, Golden-crowned Kinglets, and Eastern Bluebirds have apparently recovered from their heavy losses during the winters of 1977 and 1978; however, Ruby-crowned Kinglets continue to be scarce. With one exception, Purple Finch numbers were very low. Record high numbers for a single count were reported for Pied-billed Grebe, Great Blue Heron, Wild Turkey, Killdeer, Least Sandpiper, American Woodcock, Herring Gull, Great Horned Owl, White-breasted Nuthatch, Eastern Bluebird, Water Pipit, Pine Warbler, Rufous-sided Towhee, and Chipping Sparrow.

INFORMATION ON THE COUNTS

MEMPHIS—16 Dec.; 0700 to 1600; mostly cloudy; temp. 61-72° F; wind S, 15-25 mph; 45 observers in 13 parties; 128 party hours (97 on foot, 31 by car); 197 party miles (76 on foot, 121 by car). Diane & William Bean, Carolyn Bullock, Fred Carney, Tina Carpenter, Robert Casey, Ben & Lula Coffey (compilers—672 N. Belvedere, Memphis 38107), Chris Creech, Julian Darlington, Fred Dickson, Helen Dinkelspiel, David Elmendorf, Harold Elphingstone, Jack Embury, Robert Endres, Jim & Sue Ferguson, Bill Fowler, Joe Guinn, Van Harris, Ginger & Robert Ilardi, Theresa Irion, Susan Keeton, David Kesler, Joan Levy, Selma Lewis, Mike Likins, Ron Mumme, Gerald Papachristou, George Payne, Bill & Rob Peeples, Ernest Restivo, Virginia Reynolds, Mark Ritke, Arlo & Noreen Smith, Richard Taylor, Martha Waldron, Bobby & Wendell Whittemore, Jeff Wilson, Patricia Wood. The Snow Goose was of the blue form. Greater Yellowlegs and

THE 1984 CHRISTMAS BIRD COUNT

	MEMP	REEL	BUFF	CLAR	COLU	DRR	NASH	HICK	MURF	LEBA	HIGH	CHAT	HIWA	KNOX	GSMN	GREE	KING	BRIS	ELIZ	ROAN
Red-throated Loon	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Common Loon	--	--	--	--	--	--	--	27	--	--	13	12	--	--	--	--	--	4	1	--
Pied-billed Grebe	18	3	2	1	43	1	1	39	3	6	7	181	44	34	--	1	9	1	5	--
Horned Grebe	--	1	--	--	--	--	--	79	--	--	--	62	--	4	--	--	--	--	--	--
American White Pelican	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Double-crested Cormorant	19	5	--	--	1	--	--	1	--	7	1	1	2	8	--	--	--	1	--	--
Great Blue Heron	13	20	3	34	17	8	7	14	3	18	5	53	497	92	--	6	58	4	3	--
Cattle Egret	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Green-backed Heron	--	--	--	1	--	--	--	1	--	--	1	--	--	--	--	1	1	--	--	--
Black-crowned Night-Heron	--	--	--	--	--	--	--	2	--	--	--	--	--	3	5	--	15	--	--	--
Tundra Swan	--	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--
Snow Goose	1	6	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--
Canada Goose	9	34M	24	7	28	18	75	683	--	948	58	--	917	280	--	108	12	103	--	--
Wood Duck	2	125	--	1	13	5	--	3	2	--	--	22	--	1	--	1	3	--	2	--
Green-winged Teal	--	250	2	--	10	--	--	--	--	--	--	2	4	--	--	--	--	--	--	--
American Black Duck	1	1800	--	--	22	--	2	--	--	37	--	--	603	16	--	--	3	4	4	--
Mallard	254	69M	13	14	73	1	71	182	--	624	16	187	1300	141	--	7	692	262	50	--
Northern Pintail	--	80	--	--	2	--	--	--	--	95	--	--	70	1	--	--	--	3	--	--
Blue-winged Teal	--	8	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Shoveler	15	75	2	--	6	--	2	--	--	--	--	--	6	--	--	1	--	--	--	--
Gadwall	3	750	--	--	24	--	5	6	--	--	--	131	35	85	--	30	76	--	--	--
American Wigeon	7	260	--	--	30	--	2	--	--	134	--	61	76	2	--	--	2	4	--	--
Canvasback	--	3	--	--	7	--	--	--	--	2	--	7	--	--	--	--	1	--	--	--
Redhead	--	42	--	--	6	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Ring-necked Duck	--	210	--	--	63	1	1	--	--	47	--	21	6	72	--	--	--	50	1	--
Greater Scaup	--	--	--	--	--	--	--	--	--	--	--	60	4	--	--	--	--	--	--	--
Lesser Scaup	6	35	--	--	29	--	9	--	3	58	3	55	6	--	--	--	20	--	1	--
Oldsquaw	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Surf Scoter	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Common Goldeneye	--	84	--	--	3	--	--	13	--	--	2	84	2	--	--	--	--	--	--	--
Bufflehead	--	18	--	--	--	--	25	3	--	--	5	33	2	7	--	--	--	29	40	--
Hooded Merganser	--	12	--	--	13	--	--	4	--	14	8	4	45	54	--	--	--	--	1	--
Common Merganser	--	1	--	--	--	--	--	2	--	4	--	--	--	2	--	--	--	--	--	--
Red-breasted Merganser	--	--	--	--	--	--	--	--	--	--	--	2	--	12	--	--	--	--	--	--
Ruddy Duck	--	867	--	--	10	--	1	--	--	--	--	33	--	2	--	--	2	--	--	--
Black Vulture	--	1	3	3	151	130	17	--	41	27	83	--	59	--	--	8	7	28	--	--
Turkey Vulture	--	--	322	24	2	2	31	--	2	8	33	3	43	--	5	3	31	61	7	--
Osprey	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--
Bald Eagle	--	81	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Northern Harrier	5	12	2	--	3	11	1	1	6	1	--	1	6	--	--	--	--	--	--	--

	MEMP	REEL	BUFF	CLAR	COLU	DRR	NASH	HICK	MURF	LEBA	HIGH	CHAT	HIWA	KNOX	GSMN	GREE	KING	BRIS	ELIZ	ROAN
Sharp-shinned Hawk	2	--	--	2	1	3	4	1	--	1	--	3	2	3	--	1	--	1	1	1
Cooper's Hawk	2	--	1	--	3	3	1	2	2	--	2	4	2	2	--	1	3	2	2	1
Red-shouldered Hawk	1	8	--	3	--	1	1	1	--	--	2	7	3	--	--	--	--	--	--	--
Broad-winged Hawk	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Red-tailed Hawk	37	54	25	19	19	21	39	15	25	8	9	34	11	23	5	13	9	4	2	1
Rough-legged Hawk	--	1	--	--	1	1	--	--	1	2	--	--	--	--	--	--	1	--	--	--
Golden Eagle	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Kestrel	19	36	26	16	21	28	42	29	31	30	29	7	21	15	4	13	6	18	8	--
Peregrine Falson	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ruffed Grouse	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	1	2	--	--
Wild Turkey	--	53	15	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Bobwhite	133	11	59	16	4	6	9	36	7	--	--	22	18	--	5	32	17	9	20	--
American Coot	102	650	6	--	61	--	--	78	4	101	6	1200	1700	206	--	--	44	25	--	--
Sandhill Crane	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Killdeer	153	40	52	2	6	41	86	154	6	2	2	203	681	120	27	10	83	8	2	--
Greater Yellowlegs	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Least Sandpiper	285	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--
Dunlin	2	--	--	--	--	--	--	--	--	--	--	--	13	--	--	--	--	--	--	--
Common Snipe	71	--	17	2	2	3	17	95	4	--	--	19	33	22	1	--	1	--	1	--
American Woodcock	3	--	--	--	--	23	--	5	--	--	--	3	--	--	--	--	--	--	--	--
Bonaparte's Gull	2	14	--	--	--	--	--	20	--	--	10	--	--	10	--	--	--	--	--	--
Ring-billed Gull	121	49	--	--	28	--	--	441	--	141	68	577	148	270	--	--	--	62	--	--
Herring Gull	24	2	--	--	--	--	--	20	--	--	258	5	5	--	--	--	--	2	--	--
Forster's Tern	3	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Rock Dove	1	13	93	80	32	17	132	184	600	6	72	609	24	222	75	125	519	85	96	--
Mourning Dove	335	22	154	142	67	125	392	410	50	30	216	259	160	598	122	207	168	177	104	--
Common Barn-Owl	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--
Eastern Screech-Owl	--	--	3	--	3	12	4	6	--	2	--	2	2	22	1	--	2	--	4	1
Great Horned Owl	1	1	1	1	6	4	8	3	1	2	1	--	2	14	1	1	2	1	1	--
Barred Owl	2	3	3	1	3	1	4	--	--	2	--	--	3	--	--	--	--	--	--	--
Belted Kingfisher	8	8	19	14	13	9	23	15	16	5	6	36	23	48	10	7	15	9	15	3
Red-headed Woodpecker	2	50	1	3	2	4	1	2	--	--	1	--	2	--	3	2	1	1	1	--
Red-bellied Woodpecker	82	104	36	42	39	59	111	28	13	6	9	19	16	32	4	12	13	2	5	--
Yellow-bellied Sapsucker	11	4	3	7	13	22	30	6	12	2	5	9	4	10	6	6	3	--	5	1
Downy Woodpecker	62	45	49	45	40	48	118	28	13	6	8	37	24	57	20	17	22	12	28	8
Hairy Woodpecker	14	9	19	9	7	4	20	5	7	2	2	8	4	5	13	--	7	2	5	--
Northern Flicker	140	128	21	52	21	43	105	34	14	1	24	47	41	78	5	13	15	13	13	2
Pileated Woodpecker	15	23	26	6	9	14	32	8	2	2	5	8	13	30	38	9	20	3	9	--
Eastern Phoebe	2	1	2	--	2	2	2	--	--	--	--	1	8	6	7	4	4	1	7	--
Horned Lark	103	327	83	--	30	12	6	--	--	--	--	7	--	13	--	--	--	--	2	--
Blue Jay	125	92	41	51	18	75	118	106	30	39	48	96	38	153	17	49	43	21	44	1
American Crow	131	472	283	300	50	202	12M	240	100	53	644	333	1300	836	188	180	460	941	375	63
Common Raven	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9	--	2	1	2	7
Black-capped Chickadee	--	--	--	--	--	--	--	--	--	--	--	--	--	--	171	--	--	--	--	--
Carolina Chickadee	145	145	93	117	42	107	306	105	58	23	17	170	174	271	*	47	152	51	98	11

	MEMP	REEL	BUFF	CLAR	COLU	DRR	NASH	HICK	MURF	LEBA	HIGH	CHAT	HIWA	KNOX	GSMN	GREE	KING	BRIS	ELIZ	ROAN
Tufted Titmouse	114	108	117	124	31	64	304	52	47	19	30	132	59	91	49	47	98	26	84	7
Red-breasted Nuthatch	2	--	--	--	--	1	1	1	--	--	--	1	--	--	4	1	--	--	--	2
White-breasted Nuthatch	1	23	58	26	10	1	112	1	--	--	5	34	11	14	24	5	21	11	17	8
Brown-headed Nuthatch	--	--	--	--	--	--	--	--	--	--	--	15	1	--	--	--	--	--	--	--
Brown Creeper	24	13	3	2	1	3	26	20	2	1	--	8	9	5	14	6	7	2	3	--
Carolina Wren	123	60	34	45	54	72	152	71	12	3	7	106	87	205	52	47	130	47	79	13
Bewick's Wren	--	--	--	--	2	8	1	--	2	1	--	--	--	--	--	--	--	--	--	--
House Wren	7	1	--	--	1	--	--	4	--	--	--	1	--	--	--	--	--	--	--	--
Winter Wren	21	25	3	3	--	4	12	14	--	--	--	5	8	15	15	2	8	--	3	--
Sedge Wren	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Golden-crowned Kinglet	28	12	40	3	5	8	55	50	--	2	--	70	96	83	98	9	26	8	31	--
Ruby-crowned Kinglet	27	17	3	5	6	18	17	10	2	--	1	45	38	25	9	2	5	--	10	--
Blue-gray Gnatcatcher	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eastern Bluebird	15	34	134	58	15	151	177	12	82	17	111	92	278	89	20	47	52	36	67	32
Hermit Thrush	10	10	5	1	4	23	12	2	--	--	--	11	7	9	2	--	2	--	6	--
American Robin	1200	33	40	304	50M	3600	28M	651	900	28	98	333	392	1600	113	32	18	13	13	--
Gray Catbird	1	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Northern Mockingbird	115	40	55	69	29	71	189	135	135	13	65	57	39	163	4	45	42	35	39	--
Brown Thrasher	13	5	8	1	6	2	7	8	2	1	3	15	5	6	1	3	--	--	--	--
Water Pipit	30	92	2	3	--	--	--	--	--	--	--	1	228	71	--	--	--	--	--	--
Cedar Waxwing	42	15	54	198	24	248	65	153	27	5	187	224	232	339	23	38	5	143	92	--
Loggerhead Shrike	7	28	22	5	8	11	24	3	5	1	7	4	8	3	--	--	--	--	--	--
European Starling	1700	401	344	926	100M	5300	28M	4000	1X	500M	502	961	51M	31M	253	1400	1800	571	496	31
Yellow-rumped Warbler	210	134	43	32	22	305	110	45	42	19	1	113	364	230	23	58	82	48	140	2
Pine Warbler	2	--	--	--	--	--	--	--	--	--	1	11	15	--	--	2	--	--	--	--
Palm Warbler	5	--	--	--	--	2	--	1	--	--	--	5	1	2	--	1	--	--	--	--
Common Yellowthroat	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Northern Cardinal	340	161	169	296	134	270	619	208	80	23	66	186	139	340	31	89	145	86	111	5
Dickcissel	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rufous-sided Towhee	68	6	62	64	25	92	212	98	23	3	3	68	32	110	14	11	30	9	17	--
American Tree Sparrow	--	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chipping Sparrow	1	--	--	--	--	--	--	--	--	--	1	10	23	--	--	42	--	--	--	--
Field Sparrow	129	81	373	40	48	347	268	123	64	46	19	201	287	292	42	58	49	22	21	14
Vesper Sparrow	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--
Savannah Sparrow	106	16	29	2	21	10	34	60	--	--	--	45	12	18	5	--	--	--	--	--
Grasshopper Sparrow	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Fox Sparrow	53	11	1	4	3	6	8	12	1	--	1	1	6	--	--	3	1	--	2	--
Song Sparrow	345	48	91	60	39	177	237	316	70	9	80	287	270	507	90	97	162	78	191	51
Lincoln's Sparrow	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Swamp Sparrow	184	42	14	39	29	11	63	125	16	--	--	42	103	42	3	1	2	--	4	5
White-throated Sparrow	1400	273	162	333	109	168	1100	448	60	28	22	305	367	847	98	119	165	49	166	13
White-crowned Sparrow	20	3	35	4	29	8	14	2	8	11	--	2	2	10	--	7	--	16	1	--
Dark-eyed Junco	455	386	218	196	42	289	369	167	120	63	32	69	84	70	105	36	171	90	108	54
Lapland Longspur	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Red-winged Blackbird	5500	3100	203	82	3000	900	2000	1000	7000	1000	--	620	72M	7500	2	1	--	1	2	--

	MEMP	REEL	BUFF	CLAR	COLU	DRR	NASH	HICK	MURF	LEBA	HIGH	CHAT	HIWA	KNOX	GSMN	GREE	KING	BRIS	ELIZ	ROAN
Eastern Meadowlark	243	89	150	79	44	88	205	65	50	12	187	186	190	84	24	50	90	47	36	--
Rusty Blackbird	1400	160	--	--	1500	3	113	1	85	11	--	25	2	45	--	--	147	--	--	--
Brewer's Blackbird	15	--	1	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--
Common Grackle	4000	18M	747	421	75M	27M	174M	74	2X	1100	88	11M	61M	10M	1	5000	2	--	--	--
Brown-headed Cowbird	1500	490	43	10	3000	81	4300	1	5000	1200	--	373	20	1500	--	1	1	--	--	--
Purple Finch	2	12	9	9	6	172	2	3	7	--	--	12	9	60	14	16	6	5	3	--
House Finch	--	--	--	8	10	--	16	1	20	105	1	2	--	305	11	46	2	6	18	--
Red Crossbill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	--	--	--	--	--
Pine Siskin	--	--	--	--	--	1	1	--	--	--	--	--	--	5	125	--	--	--	--	--
American Goldfinch	168	66	170	239	68	120	228	45	59	15	48	214	287	288	91	23	97	72	117	34
Evening Grosbeak	--	--	--	--	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--
House Sparrow	368	567	295	239	66	11	82	191	500	7	287	69	38	137	44	42	103	53	93	15
Total Species	92	99	71	67	89	79	82	83	61	68	64	90	94	81	59	65	74	63	66	27
Grand Total = 142	M = 1000		X = 1,000,000																	

Forster's Terns by W.W. et al. Blue-gray Gnatcatchers by two parties. In addition, there were an estimated 900,000 blackbirds at the Elmwood Cemetery roost—about 40% grackles, 30% starlings, and 30% smaller species (Red-winged Blackbirds and cowbirds seen).

REELFOOT LAKE—22 Dec.; 0630 to 1630; clear; temp. 38-50° F; wind SW, 0-5 mph; 18 observers in 8 parties; 64 party hours (25 on foot, 35 by car, 4 by boat) plus 1 owling; 496 party miles (25 on foot, 462 by car, 9 by boat) plus 3 owling. Robin Adams, Cristina & Frances & Steve Ball, Carolyn Bullock, Ben & Lula Coffey, Wendell Crews, Dollyann Daily, W. B. Fowler, Jr., Don & Gina Manning (compilers—Rt. 1, Box 303, McKenzie 38201), Clell Peterson, David Pitts, Glenn Stanley, Mike & Wallace Todd, Jeff Wilson. Cattle Egret and Greater Yellowlegs by the Coffey party. Two of the Snow Geese were of the blue form. Forty of the Bald Eagles were adults. Seen during count period—Common Snipe and Eastern Screech-Owl.

BUFFALO RIVER—29 Dec.; 0645 to 1800; cloudy to mostly clear; temp. 60-75° F; wind SW, 0-10 mph; 17 observers, 16 in 6 parties plus 1 at feeders; 59 party hours (27 on foot, 32 by car) plus 6 at feeders; 225 party miles (27 on foot, 198 by car). Andy Augustine, Michael Beuerlein, Helen & Lloyd M. and Lloyd W. Clayton, Tom Green, David Ihrie, Chester & Dot McConnell, Ed Neidert, Royce Neidert, Ned Piper, Damien J. & Dawn & Don K. Simbeck (compiler—Rt. 2, Box 3A, Loretto 38469), Morris Williams, Wylie Willis. In addition, a female Ring-necked Pheasant was seen at Bennet Lake, near an early 1970s release site. Also seen—*Accipiter* sp.-1. Seen during count period—Wood Duck, Common Goldeneye. Excellent details submitted.

CLARKSVILLE—29 Dec.; cloudy; temp. 60-70° F; 27 observers, 14 in field plus 13 at feeders. Barbee Allen, George Beringer, Donald Blunk, Jane & John Braselton, Melinda & Mike Filson, Floyd Ford, Scott Gunn, Jerold Harris, Juanita Harris, Annie Heilman, Bill Hudson (compiler—Suite 109, Hospital Doctors Building, Clarksville 37043-4576), Nancy Hughes, Ellen Hutchison, Bill & Gloria Milliken, Hallena Minnehan, Edwin Peck, Louise Reding, John Ruble, Bess Sharp, Mary Ann

Stephens, Margaret Vankooijk, Ellen Walker, Barbara & Richard Wilbur. The Dickcissel was at feeder. In addition, 1500 unidentified blackbirds were seen.

COLUMBIA—22 Dec.; 0630 to 1700; clear; temp. 35-54° F; wind NW, 0-10 mph; 11 observers, 10 in 5 parties plus 1 at feeders; 26 party hours (5 on foot, 20 by car, 1 by canoe) plus 6 at feeders; 249 party miles (5 on foot, 241 by car, 3 by canoe). Kenneth Anderson, Margaret Greene, William Jernigan, Allyn Lay, Anne & Bedford Lochridge, George Mayfield (compiler—999 Sunnyside Dr., Columbia 38401), Mark Mayfield, Allen & Dianne Pressnell, Mitzi Thornell.

DUCK RIVER RESERVOIR—30 Dec.; 0400 to 1700; cloudy with intermittent light rain; temp. 56-74° F; wind SSW 3-15 mph; 12 observers, 11 in 5 parties plus 1 at feeders; 42 party hours (21 on foot, 21 by car) plus 3 at feeders, 5 owling; 318 party miles (11 on foot, 307 by car) plus 46 owling. Kenneth Anderson, Dan Gray, Dan Gray III, Bill Jernigan, Anne & Bedford Lochridge, George Mayfield, Allen Pressnell (compiler—Rt. 5, Box 261, Columbia 38401), Dianne Pressnell, Mitzi & Shaun Thornell. The woodcock were singing.

NASHVILLE—22 Dec.; 0545 to 1730; fog early, then clear; temp. 39-49° F; wind SW, 0-5 mph; 49 observers, 42 in 7-14 parties plus 7 at feeders; 123 party hours (101 on foot, 22 by car) plus 21 at feeders, 0.75 owling; 431 party miles (47 on foot, 384 by car) plus 3 owling. Linda Anderson, John & Willa Bates, Sandra Bivins, Polly Clarke, Kin Cosner, Bill Cowart, Annella Creech, Camille Crenshaw, Rowan DeBold, C. Gerald Drewry, Milbrey Dugger, Clifton Dunn, Adell Elam, Evelyn & John Ellis, John Fort, Ed Gleaves, Katherine Goodpasture, Sarah Greene, Mary Ann & Tom Guschke, Paul Hamel, Bob Hatcher, Maxey Irwin, Louise Jackson, Margaret Mann, Jane Maynard, Marge & Oscar Patrick, John Price, Larry Raye, Richard Simmers, Pat Stallings, Helen Sterling, Ann Tarbell (compiler—6033 Sherwood Dr., Nashville 37215), David Vogt, Miriam Weinstein, Cliff Whitehead, Hardy Wilcoxon, Alan Winfield, Betty Worden, Virginia Workman. The Broad-winged Hawk was described as a small buteo with short broad wings, short tail with three dark bands, breast barred with red, wing linings white, head dark; seen by D.V. & J P. Sandhill Cranes heard calling and seen in flight. Also seen—night-heron sp.-1, swan sp.-1, *Buteo* sp.-2, blackbird sp.-2000. Seen during count period—Oldsquaw and Common Goldeneye.

HICKORY-PREIST—29 Dec.; overcast to partly cloudy; temp. 62-69° F; wind SW, 9-22 mph; 26 observers, 22 in 7 parties plus 4 at feeders; 67 party hours (42 on foot, 25 by car) plus 21 at feeders, 6 owling; 231 party miles (31 on foot, 200 by car) plus 5 owling. Frances Abernathy, Jan Alexander, Kathy Davidson, Jerry Drewry, John Ellis, Katherine Goodpasture, Mary Ann Guschke, Paul Hamel, Barbara Harris, Daniel Jacobson, Lee Kramer, Kathy Lee, Margaret Mann, Dick Newton, Larry Raye, Pat Stallings (compiler—406 N. 17 St., Nashville 37206), Barbara & Stephen Stedman, Ann Tarbell, David Vogt, Miriam Weinstein, Hardy Wilcoxon. Also seen—scaup sp.-2 and gull sp.-240. Seen during count period—Peregrine Falcon. Good details on unusual species.

MURFREESBORO—29 Dec.; overcast; temp. 60-70° F; windy; 8 observers. Lou A. Erwin, Anne L. Hettish (compiler—1018 Lawndale Dr., Murfreesboro 37130), Wilma J. Hunter, Don & Linda Magee, Mike McCarroll, Ruth V. McMillan, Terry J. Witt. Also seen—*Accipiter* sp.-1. Seen during count period—Canada Goose, Eastern Screech-Owl, and Golden-crowned Kinglet.

LEBANON—22 Dec.; 0700 to 2100; partly cloudy; temp. 40-48° F; windy; 7 observers. Earline C. Berry, Linda Bowman, Fred Detlefsen, Donald C. Jenkins, Ruth V. McMillan (compiler—Rt. 2, Box 141, Lascasas 37085), Ray Pope, Marty Rush. Seen during count period—Cooper's Hawk and Purple Finch.

HIGHLAND RIM—29 Dec.; cloudy to clear; temp "mid 50s-60s"; 22 observers in 8 parties; 36 party hours; 325 party miles; Philip Medley (compiler—Rt. 2, Box 173B, Hillsboro 37342).

CHATTANOOGA—15 Dec.; 0430 to 1800; clear; temp. 40-70° F; wind S, 0-8 mph; 38 observers, 36-38 in 9-11 parties plus 0-2 at feeders; 98 party hours (77 on foot, 21 by car) plus 4 at feeders, 7 owling; 443 party miles (44 on foot, 399 by car) plus 32 owling. Carl Adams, Del Blum, Greg Bosworth, Edith Bromley, Jim Brown, Louise Cash, Brainerd Cooper, Angela Davis, Paul Dietrich, Ken & Lil Dubke, Lolita Harris, Paul Harris, John Henderson, Graham Hawks, Al Jenkins, Starr Klein, Gilda Lyon, Louie Mann, Dave & Leann Mathewson, Barbara & Mike McMahon, Graham Means, Marie Miller, Johnny Parks (compiler—1610 E. 17th St., Chattanooga 37404), David & Tom Patton, Peter Robinson, Jim Rowell, Robin Rudd, Eugene Ryther, Debbie Smith, Carl & Chris Swafford, Everette Watkins, Susan Watson, Dan Williams. Also seen—scaup sp.-37, *Accipiter* sp.-1. Red-throated Loon deleted—details unconvincing. Seen during count period—Red-necked Grebe (adequate details), Black Vulture, Northern Goshawk (seen irregularly all winter).

HIWASSEE—1 Jan.; 0530 to 1800; overcast with light to moderate rain; temp. 64-58° F; wind S to NW, 4-15 mph; 19 observers in 8 parties; 77 party hours (51 on foot, 25 by car, 1 by boat) plus 3 owling; 379 party miles (29 on foot, 346 by car, 4 by boat) plus 13 owling. Ruth Barber, Edith Bromley, Angela Davis, Ken & Lil Dubke, Gertrude Fleming, Rick Knight, Tony Koella, Charles Nicholson, Johnny Parks (compiler), Mark Reeves, Robin Rudd, Boyd Sharp, Billy & Mary Shewall, Randy Stringer, Craig & Keith & Susan Watson. Good details on unusual species.

KNOXVILLE—16 Dec.; 0400 to 1745; partly cloudy; temp. 44-68° F; wind W, 0-10 mph; 27 observers, 26 in 14 parties plus 1 at feeders; 122 party hours (70 on foot, 52 by car) plus 4 at feeders, 12 owling; 599 party miles (57 on foot, 542 by car) plus 70 owling. Jane Beihtema, Lawrence Bostian, Barbara Finney, Louise Fuller, Bruce Gilmer, Maurice Grigsby, Paul Hartigan, David Highbaugh, Audrey Hoff, Tom Howe, J. C. Howell, Hal Hubbs, Burt Jones, Tony Koella, Bettie & James Mason, Bill McNutt, Sally Mirick, Charles Nicholson, Holly Overton, J. B. Owen, Paul Pardue, Don Powers, Mark Reeves, Boyd Sharp, James Tanner (compiler—Rt. 26, Box 155, Knoxville 37920). Bobwhite missed for first time in 25 years.

GREAT SMOKY MOUNTAINS NATIONAL PARK—30 Dec.; 0500 to 1750; partly cloudy to overcast; temp. 40-68° F; wind W, 0-7 mph; 27 observers in 13 parties; 97 party hours (77.5 on foot, 19.5 by car); 301.5 party miles (93.5 on foot, 208 by car). Betty Adams, Howard Chitwood, Marcia Davis, Don DeFoe (compiler—GSMNP, Gatlinburg 37738), Paul

Dinwiddie, Linda Fowler, Louise Fuller, Chris Hamilton, Paul Hartigan, David Highbaugh, Audrey Hoff, J. C. Howell, Tom Howe, Elizabeth & Hal Hubbs, Daryl Michael, Pat Moore, Charles Nicholson, Holly Overton, J. B. Owen, Paul Pardue, Truett Patterson, Bretta Perkins, Lin Schmale, Boyd Sharp, James Tanner, Brant & Jim Tate. The chickadees were a mixture of Black-capped and Carolina. Also seen—*Accipiter* sp.-1.

GREENEVILLE—29 Dec.; clear; temp. 43-67° F; 17 observers; 62 party hours; 95 party miles (13 on foot, 82 by car); Ben Britton (compiler—Rt. 1, Box 348, Greeneville 37743).

KINGSPORT—29 Dec.; 0500 to 2000; clear; temp. 62-72° F; wind SW, 0-5 mph; 21 observers, 19 in 8 parties plus 2 at feeders; 60 party hours (39 on foot, 17 by car, 4 by boat) plus 4 at feeders, 2 owling; 247 party miles (21 on foot, 214 by car, 12 by boat) plus 2 owling. Frank Altom, Betsy Baker, Connie & Robert Baker, Jeff Baker, Reva Baker, Tom Bowman, J. P. Dillow, Arthur & Nancy Garrett, Jim Gilland, Charles Hasbrouck, Wynn Herbert, Rick Knight, Jenny Matherly, Gregory McConnell, E. E. Scott, Arthur Smith (compiler—100 Otari Dr., Kingsport 37664), Frank Williams. Rough-legged Hawk seen by E.E.S.

BRISTOL—29 Dec.; 9 observers in 4 parties; 34 party hours; 273 party miles. Wallace Coffey, Bert & Ken & Loraine Hale, Joe Jackson, Tom Laughlin, Richard Lewis (compiler—Rt. 3, Box 470, Bristol 37620), Aaron Trent, Enno van Gelder. Red-throated Loon seen by W.C.

ELIZABETHTON—15 Dec.; 0400 to 1700; clear; temp. 39-71° F; 17 observers in 6 parties; 54.5 party hours (25 on foot, 29.5 by car) plus 3 owling; 332.5 party miles (14.5 on foot, 318 by car) plus 30 owling. Richard Clark, Martha Dillenbeck, Helenhill Dove, Glen Eller (compiler—Rt. 9, Box 1340, Elizabethton 37643), Harry Farthing, Elizabeth Funkhouser, Sally Goodin, Richard Hegler, Rick Knight, Joy Kyle, Richard & Vickie Lewis, Ed Schell, Rita Scher, Arthur Smith, Gary Wallace, Frank Ward. Seen during count period—Horned Grebe, Double-crested Cormorant, Ring-billed Gull, Common Grackle.

ROAN MOUNTAIN—22 Dec.; 0700 to 1630; partly cloudy; temp. 33-52° F; wind 10-40 mph; 7 observers in 3 parties. Richard Clark, Glen Eller (compiler), Richard Hegler, Rick Knight, Ed Schell, Arthur Smith, Frank Ward.

CORRIGENDA: Numbers for the Tufted Titmouse in the 1983 Christmas Bird Count Table (*Migrant* 55:10, 1984) are wrong, and should read, from left to right: 57, 64, 54, 104, 32, 49, 88, 213, 56, 54, 21, 14, 28, 78, 51, 82, 130, 116, 80, 25, 60, 17.

ROUND TABLE NOTES

A YELLOW-CROWNED NIGHT-HERON COLONY IN RUTHERFORD COUNTY, TENNESSEE—In April 1982, James Warren and I found a nesting colony Yellow-crowned Night-Herons (*Nycticorax violaceus*) in a 21 ha woodlot approximately 5 km SW of Murfreesboro, Rutherford County, Tennessee. The woodlot is near an industrial park and adjacent to Tennessee Rt. 99, and 1.6 km SW of the West Fork of the Stones River. Several limestone sinks and at least one small (0.2 ha) temporary pond occur in the woodlot.

On our initial visit on 12 April, we observed 6 adult birds. On 13 April, we observed 4 birds, 2 of which were occupying nest sites. We also served a bird carry a stick to a nest. On 23 April, we observed 5 birds and 3 occupied nests (Figure 1). We also observed 6 unoccupied nests. On our last visit on 18 July 1982, we again saw 5 adult birds, and, because of the dense tree canopy, were unable to see any immature birds. Seven of the nests were in hackberry (*Celtis* sp.) trees and 2 were in large eastern redcedars (*Juniperus virginianus*). The nests appeared to be loosely constructed, with an estimated diameter of 30-45 cm. The occupied nests were approximately 9-10 m above the ground.

This is apparently the first nest record of the Yellow-crowned Night-Heron in Rutherford County. Because of the location of this heronry, near a major highway and an industrial park, it is vulnerable and worthy of protection.

CARY R. HENDERSON, Rt. 1, Box 378, White House, TN 37188. Accepted 10 May 1985.

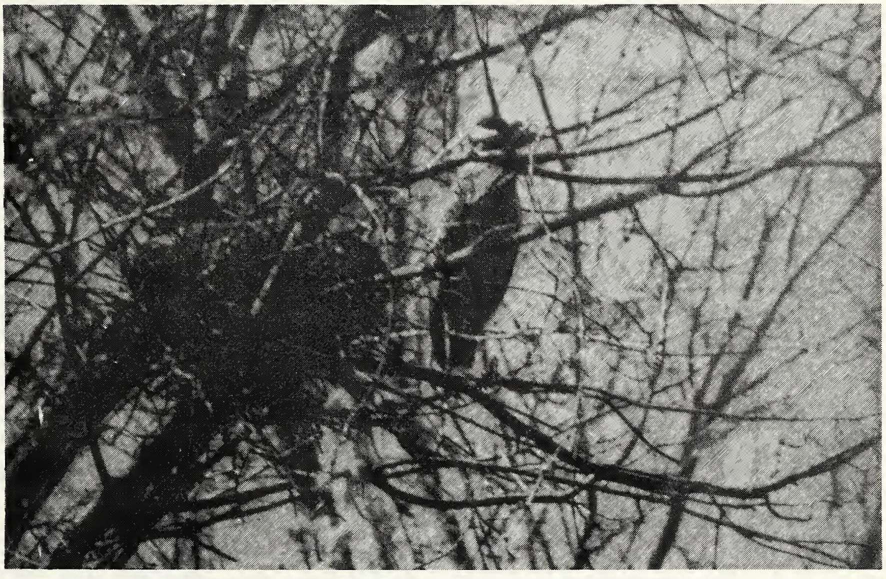


FIGURE 1. Yellow-crowned Night-Heron at nest, Rutherford County, Tennessee. Photo by Cary R. Henderson.

RED-NECKED GREBE AT NICKAJACK LAKE, TENNESSEE—On 24 November 1984, while birding at Nickajack Lake, Marion County, Tennessee, I observed two Red-necked Greves (*Podiceps grisegena*), one adult and one immature. At 1600 on a clear, calm day, I watched from the parking lot atop Nickajack Dam as the adult bird swam towards me from a distance of some 600 m. At first the only thing I could determine was that it was larger than the Horned Grebes (*P. auritus*) which were in front of the Red-necked Grebes and in my scope field at the same time. As the adult neared, I detected the white throat and white upper foreneck as well as the two-toned yellow bill, the lower mandible having slightly more yellow than the upper. It had a "black-capped" appearance with a charcoal gray cap, covering only the top of the head, and a conspicuous crescent pattern on the sides of the face. The white neck faded into a mottled grayish chest; the sides and back of the neck as well as the mantle were gray. The rear flank was white as was the crissum; the sides forward of the flank were very light gray to mottled white. During the 15 minutes I watched the adult, it dived twice. As the adult neared the shore, I observed a second Red-necked Grebe, which was rather nondescript gray with a large silvery bill, and was the same size as the first grebe. The foreneck was a mottled gray and the flank was a mottled white; otherwise the bird was light to medium gray. This bird was apparently an immature.

I used the National Geographic Society *Field Guide to the Birds of North America*, *The Audubon Society Master Guide to Birding*, and a Bausch & Laumb Discoverer 15-60x scope at up to 55x to identify the grebes. The following day, several Chattanooga birders, including myself, attempted to find these birds without success. This is the first record for Red-necked Grebes on Nickajack Lake, although there are at least two records from Chickamauga Lake.

JOHNNY T. PARKS, 1610 East 17th St., Chattanooga, TN 37404. Accepted 5 June 1985.

SIGHT RECORD OF GYRFALCON IN JEFFERSON COUNTY, TENNESSEE—On 13 January 1978, at 1030, I observed a white phase Gyrfalcon (*Falco rusticolus*) in Jefferson County, Tennessee. The falcon flew across the road and in front of my car at the intersection of U.S. 70 and state hwy. 113. I observed the falcon for about 1½ minutes, with and without binoculars, as it harassed a flock of European Starlings (*Sturnus vulgaris*). Field marks observed included: slim, pointed wings, large size (larger than Peregrine Falcon, *P. peregrinus*, with which I am familiar, or American Crow, *Corvus brachyrhynchos*), solid white plumage without facial markings, and slow wing beat. Each time the falcon dived, the slow, but powerful, wing beats carried the falcon well beyond the electrical substation where the starlings had retreated. Light conditions were excellent at the time of the observation, and snow had covered the ground for several days.

The winter of 1977-1978 was extremely cold, especially in January. In the introduction to the winter "Season" report, Alsop (*Migrant* 49:39, 1978) wrote "We experienced the coldest winter on record with conditions that brought boreal species southward in impressive numbers." It seems likely to me that the Gyrfalcon I observed came south from the Midwest. In searching through "The Winter Season" reports in *American Birds* (32, 1978), The Western Great Lakes and Northern Great Plains Regions reported a total of 19 Gyrfalcons. One was also reported from Squaw Creek National Wildlife Refuge, Missouri in December 1977. At least 10 Gyrfalcons were observed in reporting regions NE of Tennessee. This is the first Tennessee report of a Gyrfalcon, and because I was the only observer and did not photograph the bird, it should be placed on the provisional list of Tennessee birds.

J. ANTHONY KOELLA, P.O. Box 58, Rockford, TN 37853. Accepted 25 July 1985.

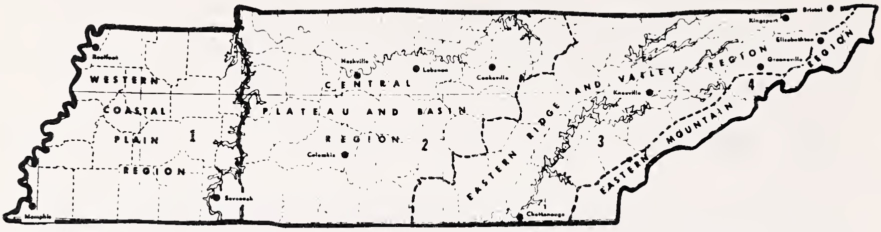
SUMMER RECORDS OF THE WHITE-THROATED SPARROW IN MEMPHIS AND NEAR SAMBURG, TENNESSEE—The White-throated Sparrow (*Zonotrichia albicollis*) is a common winter resident in the Mid-South, arriving about 1-10 October and leaving about 10-21 May. Some extreme dates are: Arrival—23-25 September 1976 (J. Lohrey), 27 September 1952 (T. Bonner), from 29 September 1976 on (BBC), and 30 September 1972 (BBC, LCC); Departure—22-27 May 1962 (T. Carpenter), 24 May 1974 (J. Embury), 17-27 May 1975 (the late Mrs. Charles Seahorn, Sr.), 24 May 1977 (V. Julia), and 28 May 1983 (B. Whittemore).

On 11 June 1981, Rob and Bill Peeples, while running a Breeding Bird Survey, head a White-throated Sparrow singing one mile NE of Samburg, Obion County. After completing their route, they returned to the spot, again heard the bird, but were not able to see it. In Memphis, Bobby Whittemore, with his father, Dr. W.L. Whittemore, heard one singing 29 June through 2 July 1981. They were unable to see the singer. Another never sang but was seen at Coffey Grounds from 1 August 1981 into the winter as detailed below. On 2 July 1982, the C.F. Manns phoned us that they had twice seen one (a bright morph) that date, under their feeder in Whitehaven, a section of Memphis. Lula Coffey and I went there and finally saw it for several minutes at 1500. These three times were the only times it was seen. Their last spring date for the species in 1982 was 13 May. On 23 June 1983, late in the morning, Lula Coffey and I both heard one good loud song at Coffey Grounds. I could not find the bird later. Other June dates are 4 June 1969 (V. Julia, holly hedge downtown), and 11 June 1968, at Mrs. Paul C. Owens' in Germantown, verified by Mrs. Charles Seahorn, Sr.

The most interesting summer appearance was that of a dull morph at Coffey Grounds, first seen at 1700 on 1 August 1981 at a banding trap site. On 6 August, at 1900, two alarm notes were heard from a cane patch close by, and two other call notes were heard at 0930 the next morning; it was seen three hours later. These were the only call notes heard (and no song) in over a month. Apparently, with no others of this species present, there was no need for it to communicate. It was again seen 8 August (morning—LCC); 10 August (at 1830) with no tail; twice on 11 August (morning and afternoon); and banded (No. 1241-70649) at 1830 on 12 August. The tail had grown back by 22 August. The bird was seen only briefly, but daily, through 6 September in dim early light at the trap site. We left home that day for Peru. On 16 October, the morning after our return, we saw two White-throated Sparrows at the site; our season's complement had started arriving during our absence. No. 1241-70649 was retrapped two times from 10 December 1981 through 27 April 1982; we have no further record of it.

BEN B. COFFEY, JR., Coffey Grounds, 672 N. Belvedere, Memphis, TN 38107. Accepted 25 July 1985.

THE SEASON



FALL MIGRATION: 1 AUGUST-30 NOVEMBER 1984

August and September temperatures were near normal and rainfall was below normal throughout the state. October and November were very warm with average or above average rainfall. Several warm temperature records were set in November, and the first killing frosts did not occur in most of the state until November. Few strong frontal passages were reported. These mild conditions allowed many species to linger later than average, and many new late records were set throughout the state.

In addition to lingering species, there were also many reports of rare or uncommon species. A Long-tailed Jaeger, the first state record, was reported along the Mississippi River in early September. Tundra Swans were reported from the 3 eastern-most regions, and the 12 at South Holston Lake is one of the largest flocks ever reported from the state. The number of Peregrine Falcon reports, coming from all regions, was higher than average, and a Prairie Falcon was reported from West Tennessee. There were many noteable shorebird reports from West and Middle Tennessee, and terns were present into November. Aside from many late records, the songbird migration was apparently not spectacular, and, from the few reports by the end of November, it appears that northern finches will be in low numbers this winter.—CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION—This was a productive season as several infrequent visitors were observed. Weather conditions were favorable and enhancing for migratory birds. Good shorebird habitat was easily accessible, and several areas were frequently visited by birders. Ruddy Turnstones, Sanderlings and Dunlins were observed along the Mississippi River and at the sewage lagoons in southwest Memphis. The Long-tailed Jaeger, a first for Tennessee, drew birders from across the state. The Red-necked Phalarope was a first for West Tennessee. Other noteable observations included Peregrine and Prairie Falcons and Merlins, all near the Mississippi River.

Grebe - Falcon: Horned Grebe: 11 Nov (32) PLS (SJS). Double-crested Cormorant: 24 Nov (700) MUL (BBC, LCC). Great Blue Heron: 27 Sep (53) Island 21, DYC (WGC); 11 Oct (22), 21 Oct (54) I13 (WGC). White Ibis: 25 Aug (1) ESL (JRW). Snow Goose: 30 Oct (49) MUI (CHB). Oldsquaw: 11 Nov (1) PLS (DWB). SURF SCOTER: 28 Oct, 3 Nov, 11 Nov (1 imm) PLS (DWB). Osprey: 17 Sep (1) Heloise, DYC, 26 Sep (1) I13 (WCG); 29 Sep (1) MUL (William P. Peeples, W. Robert Peeples); 13 Oct (1) I13 (WGC). Bald Eagle: 13 Oct (2 ad, 1 imm) REL (JLS); 24 Nov (1 imm) MUL (BBC). Cooper's Hawk: 26 Sep (1) OVP (JLS). Broad-winged Hawk: 17 Sep (13) PEF (Duane E. Baker). Merlin: 22 Sep (1) ESL (JRW); 15 Sep (1) ESL

(MCTOS); 22 Sep (1), 30 Sep (1) Lattawoods, Dyersburg (RCS); 6 Oct (1) ESL (MGW, JRW). **PEREGRINE FALCON**: 17 Sep (1) I13 (RCS); 19 Sep (1), 26 Sep (1) I13 (WGC); 28 Sep (1) ESL (JRW); 29 Sep (1) I13 (WGC). **PRAIRIE FALCON**: 15 Oct (1), 19 Oct (1) I13 (WGC, RCS).

Plover - Tern: Black-bellied Plover: 5 Sep - 24 Oct (17 dates, 1 to 7, max of 15 on 29 Sep) I13 (WGC). Piping Plover: 23 Sep (1) I13 (WGC). Willet: 10 - 19 Sep (1) I13 (WGC). Ruddy Turnstone: 3 Sep (19) I13 (RCS, MCTOS); 10 Sep (2) I13 (WGC). Red Knot: 2 Sep (1) Pace Point, Henry Co. (MCTOS); 10 Sep (4), 15 Sep (2) I13 (WGC). Sanderling: 5 Sep - 11 Nov (3 to high of 42 on 22 Sep) I13 (WGC, RCS); 25 Nov (2) ESL (CHB), one month later than previous regional records. Western Sandpiper: 3 Sep - 20 Oct (1 to 50+) I13 (RCS). Baird's Sandpiper: 3 - 24 Sep (1 to 7) I13 (RCS); 22 Sep - 21 Oct (1 to 4) I13 (WGC), one month later than previous regional records. Dunlin: 12 Sep - 22 Oct (1 to 19) I13 (RCS); 1 Nov (20), 3 Nov (40), 18 Nov (11) ESL, (DAD, MGW, JRW). Buff-breasted Sandpiper: 2 - 27 Sep (4 to 17) I13 (RCS). Wilson's Phalarope: 2 Sep (1) ESL (BBC); 10 Sep (1) I13 (WGC). **RED-NECKED PHALAROPE**: 4 Oct (1) I13 (WGC), first West Tennessee record. **LONG-TAILED JAEGER**: 2 - 4 Sep (1) I13 (BHS, SJS, ARH, RDH, *et al.*), first state record; details to appear in Round Table Notes. Common Tern: 28 Oct (2) PLS (DWB). Forster's Tern: 28 Oct (3) PLS (DWB); 17 Nov (1) PLS (SJS); 18 Nov (1) ESL (JRW).

Nighthawk - Finch: Common Nighthawk: 30 Aug (450) MEM (JRW); 31 Aug (70) MEM (SNK); 12 Oct (50) OVP (JLS); 13 Oct (200+), 27 Oct (1) Dyersburg (RCS), latest regional record by two days. Chimney Swift: 28 Oct - 17 Nov (3 to 50) MEM (Diane P. Bean, William J. Bean, Oliver Irwin, JLS, JRW), first November records for West Tennessee. Scissor-tailed Flycatcher: 30 Oct (1) MUI (George Owens). Purple Martin: 20 Oct (400+) REL, Upper Blue Basin (RCS). Winter Wren: 3 Oct (1) Dyersburg (RCS), one day early. Sedge Wren: 29 Oct (1) PEF (Robert T. Casey). Water Pipit: 24 Sep (1) I13 (RCS), previous early date for West Tennessee was 10 Oct. Rose-breasted Grosbeak: 14 Nov (1) President's Island, Shelby Co. (CHB). Lark Sparrow: 20 Sep (2) Wynnburg (RCS), previous latest regional record was 8 Aug. Lincoln's Sparrow: 12 Oct (3) Lake Co. (RCS). Snow Bunting: 12 Nov (1) I13 (WGC). American Goldfinch: 10 Nov (145) NE Decatur Co. (CHB).

Locations: DYC - Dyer Co.; ESL - Ensley Sewage Lagoons, Shelby Co.; I13 - Island No. 13, Mississippi River, Lake Co.; MEM - Memphis, Shelby Co.; MUI - Mud Island, Shelby Co.; MUL - Mud Lake, Shelby Co.; PEF -Shelby Co. Penal Farm; REL - Reelfoot Lake.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION—For the second consecutive fall, the region enjoyed balmy weather into November, with the inevitable result that many species, especially the woodland passerines, were reported well past their average departure dates. Specific evidence of this generalized condition occurred in the Nashville Area, where 8 species set or tied late date records, while only 3 species arrived earlier than ever before. Rainfall in the first 2 months of the season was below normal in Nashville (about 1 inch deficiency in August and 3 inches in September). However, the last 2 months of the season were wetter than usual (3.5 inches excess in October and 2.75 inches in November). Interestingly enough, nearly all the rarities of the season were sighted during the latter 2 months, while the presence of good concentrations of passerines throughout October and early November is certainly attributable in part to the warm, wet conditions which dominated the weather at that time.

The season as a whole is difficult to assess, mainly because the various groups which comprise the mosaic of bird migration were reported in varying numbers and in varying degrees of completeness by regional field observers. For instance, waterfowl enjoyed a good season; many species, some of them not of annual occurrence, were recorded, and most of them were in high numbers. In part this status may have been due to the fact that there were simply more of these species present than normal, but also affecting our perception of their status is the generally good coverage which is afforded them by federal and state biologists, as well as by private citizens. The opposite condition prevails for raptors, which with a few exceptions (i.e., eagles) are not as well monitored in the region as are waterfowl. Thus, though it appeared that the hawk migration was somewhat below average, this perception may be due as much to the lack of organized hawk lookouts in middle Tennessee as to the generally poor weather (few major frontal passages) which dominated September, when the bulk of migrating hawks passes through. Broad-winged Hawks went almost unreported in that month, for example; on only 2 days were more than 10 birds reported from one site. Accipiters, on the other hand, were sighted in encouraging numbers. Ospreys were less numerous than in the past few seasons, but eagles were about normal. Harriers frequented the National Wildlife Refuges but were scarce elsewhere.

Organized crane-watching on the eastern Highland Rim and the western Cumberland Escarpment (notably in Pickett and Putnam Counties) resulted in enough data to indicate that a normal Sandhill Crane migration took place. About 350 migrant cranes were tallied between 26 October and 3 December. The one sighting west of the escarpment, like most sightings west of the main migration corridor, did not involve many birds, but it did add support to the contention that the Sandhill Crane should no longer be considered accidental west of the Cumberlands. The shorebird migration throughout the region was a fairly good one, but certainly not spectacular, partly due to the fact that August and September were relatively rainless and partly due to the absence of 2 veteran shorebird specialists from Sumner County (the Crawfords went off on a lark to Australia). Except for a 2-hour show put on by one of the rarer phalaropes at Radnor Lake, the highlights of the shorebird season occurred mainly at the Duck River Unit of the Tennessee NWR, where a prolonged drawdown of the impoundments created dozens of acres of mudflats for most of the season. At least 23 species of shorebirds occurred there, some in substantial numbers.

No major incursion of any boreal species was under way by season's end. Red-breasted Nuthatches, Purple Finches and Pine Siskins were all scarce, and no reports of Evening Grosbeaks were submitted, dampening hopes that an "echo" flight from the preceding winter might materialize. Similarly, Rough-legged Hawks were unreported by the end of November. So, in summary, the fall of 1984 was a good one for those who concentrate on waterfowl, shorebirds and passerines, but it was generally mediocre for those who focus on hawks and northern invaders.

Loon - Ibis: RED-THROATED LOON: 10-11 Nov (1) WDR (CRD, MI *et al.*), about 5th regional record and 2nd fall in a row at WDR. Common Loon: 27 Oct (1) MOP (ARL, OBL *et al.*), ers; 3 Nov (280) WDR (KHD, LHD *et al.*), high number; 17, 25 Nov (1 albinistic) CCNWR (SJS, DWB *et al.*). Pied-billed Grebe: 27 Oct (45), 16 Nov (61) MOP (ARL, OBL), highest counts of season. Horned Grebe: 23 Sep (1) MOP (ARL, OBL), ers; 3 Nov (25) WDR (KHD, LHD), highest count of season. Double-crested Cormorant: 18 Aug (1) DRU (SJS, BHS), ers; 1 Nov (30) CCNWR (FFR, Roy Brown), good number; 3 Nov (6) Laurel Hill L, LWC (DJS, Michael A. Beuerlein), first LWC record; 24 Nov (60) DRU (SJS, BHS), highest count of season; a good fall for this species with many reports from many locations over the entire season. **WHITE PELICAN**: 25-26 Nov (1) WDR (Anne Nixon *et al.*), rare visitor to region; bird stayed into next season. American Bittern: 7-21 Oct (1) MC (DFV *et al.*), only report. Great Egret: reported from CFC, HPC, MUC, SWC and WLC; 15 Sep (80) DRU (SJS *et al.*), highest count of season. Snowy Egret: 20 Aug (1) CCNWR (DWB); 25 Aug (1) DRU (SJS, BHS); only reports. Little Blue Heron: 2 Aug (1) LOR (DJS); 12-23 Aug (up to 5 imm) Lewis Pond, SUC (CGD); 12 Aug (43) DRU (SJS, BHS), high count of season. Cattle Egret: 10 Nov (12) 5 mi S of Franklin, WMC (SJS), new NA late fall date. Green-backed Heron: 14 Oct (1) SWC (DWB), lrs. Yellow-crowned Night-Heron: 18 Sep (1) CCNWR (DWB); 23 Sep (1 ad) MOP (ARL, OBL), only reports. White Ibis: 12, 19 Aug (1 imm) DRU (SJS, BHS, DWB), only report.

Swan - Duck: Tundra Swan: 22 Nov - EOP (1 imm) MOP (WNJ *et al.*), only report. Canada Goose: 23 Nov (1 small race) Cage's Bend, SUC (Wick Comer); by EOP 12500 and 8750 at DRU and CCNWR, respectively. White-fronted Goose: 26 Oct - 4 Nov (3 ad, 4 imm) CCNWR (MI, Camille Crenshaw *et al.*), only report, but also the prelude to a modest winter invasion for this species. Snow Goose: 4 Nov - EOP scattered reports of up to 21 birds from FKC, HPC and SWC. Green-winged Teal: 31 Aug (12) Barkley Wildlife Management Area, SWC (DWB), ers; 5 Nov (500+) CCNWR (FFR), highest count of season. Mallard: by EOP 25000+ and 8100 at DRU and CCNWR, respectively. Black Duck: 23 Aug (1) GSP (CGD), ers. Northern Pintail: 2 Sep (1) CCNWR (DWB), ers. Blue-winged Teal: 4 Nov (1) QUL (TJW), laggard due to warm weather, but a few also lingered into December. Gadwall: 13 Sep (3) GSP (DTC, JPC), 1 day later than the NA early fall date. **EURASIAN WIGEON**: 19 Oct - 25 Nov (first 2 males, then just 1) CCNWR (DWB *et al.*), about 6th state record. Canvasback: reported 1 Nov to EOP from HPC, SWC and WMC; 13 Nov (40) FFR (SJS), highest count of season. Redhead: reported 1 Nov to EOP in DVC, FKC, RUC, SWC and WMC; 22 Nov (25) CCNWR (DWB), highest count of season. Ring-necked Duck: 1 Oct (1) CCNWR (DWB), ers; by EOP 1200 and 650 at DRU and CCNWR, respectively. Lesser Scaup: 6 Oct (3) RDL (John D. Fort *et al.*), new NA early fall date; by EOP 1000 scaup sp. at DRU. Common Goldeneye: 3 Nov (5) WDR (KHD, LHD *et al.*), early. Bufflehead: 4 Nov (1) FFR (SHS), ers. Surf Scoter: 31 Oct - 3 Nov (2) RDL (CGD *et al.*); 3 Nov (1) QUL (TJW); 4 Nov (4) WDR (KHD, LHD, J.B. Owen); species seen in region 4 of last 5 autumns. White-winged Scoter: 31 Oct (1 male, 2 imm) QUL (TJW); 5 Nov (1) RDL (*fide* ATT). Red-breasted Merganser: 3 Nov (8) WDR (KHD, LHD *et al.*), ers. Ruddy Duck: 6 Oct (3) PAP (CGD *et al.*), new NA early fall date; species widely reported in small numbers in late Oct and Nov.

Osprey - Crane: Osprey: 5 Aug (1 banded) GSP (CGD), ers, but possibly bird hacked at PPL; 27 Oct (1) AWL (ARL, OBL *et al.*), lrs. Bald Eagle: 1 Sep (1 imm) DRU (CGD *et al.*), very early, but possibly raised nearby;

normal numbers present on most of the big lakes by EOP. Northern Harrier: 17 reports, but 14 from either DRU or CCNWR; 25 Aug (1 imm) DRU (SJS, BHS), ers. Sharp-shinned Hawk: 16 reports from 8 counties; 29 Sep (5) PAP (SJS, MI *et al.*), highest count of season; 1 Nov (1 first-year male banded) BAS (KAG); an encouraging number of sightings. Cooper's Hawk: 20 report from 9 counties, indicating that this species, like the preceding one, is rebounding moderately well from the pesticide-induced crash of the late 1960s. Northern Goshawk: 24 Nov (1 imm) CCNWR (CGD). Broad-winged Hawk: 15 Sep (41) and 29 Sep (38+) CHC (BHS, SJS, MI *et al.*), though low, these totals represent the highest ones of the season; 6 Oct (6) EWP (DFV), lrs. Merlin: 18 Sep (2) GSP (DTC, JPC, LFK, Hazel Kramer); 27 Oct (1) AWL (*fide* ARL); 3 Nov (1) RDL (CGD *et al.*); 26 Nov (1) Cumberland City Steam Plant, SWC (DWB); high number of sightings of this "Blue-listed" species. Peregrine Falcon: 6 Sep (1) DVC (Heather Riggins); 29 Sep (1 ad) PAP (SJS *et al.*); 24 Oct (1) CCNWR (*fide* FFR). Virginia Rail: 3 reports 6-20 Oct from Ashland City Marsh, CHC, MC and MOP. Sora: 3 Nov (1) PAP (CGD *et al.*), late. Common Moorhen: 12-27 Oct (up to 3 imm) MOP (Randy C. Stringer, ARL *et al.*); 24 Oct (1 imm) QUL (TJW), only reports. American Coot: peaked in late Oct and early Nov with 500, 2000 and 6000 at Dale Hollow Lake, Pickett Co. (RCH), WDR (KHD, LHD *et al.*), and DRU (Carl Dowdy), respectively. Sandhill Crane: 26 Oct (26) BYR (RCH); 12 Nov (40+) BYR and BAH (RCH, RWS); 13 Nov (212) BYR (RCH); 17 Nov (2) southern RUC (TJW, Paul C. Harris), 8th NA record; 3 Dec (81) BYR (RCH).

Shorebirds: Black-bellied Plover: 24 Nov (3) DRU (SJS, BHS), lrs. Lesser Golden-Plover: 7 reports 2 Aug - 8 Oct, an unusually high number as this species traditionally uses the Atlantic Flyway in fall; 13 Sep (13) DRU (SJS), highest count. Piping Plover: 25-29 Aug (1) DRU (SJS, BHS *et al.*), only report. Greater Yellowlegs: 19 Jul (12) DRU (CGD), ers; 24 Nov (3) DRU (SJS, BHS), lrs. Lesser Yellowlegs: 15 Jul (5) GSP (CGD), ers; 12 Nov (1) Bard's L., SWC (DWB), lrs. Solitary Sandpiper: 15 Jul (1) MOP (SJS, BHS), ers; 26 Oct (1) DBC (AHH), lrs. Willet: 15 Sep (1) DRU (SJS, CRD *et al.*), only report. Spotted Sandpiper: 3 Nov (1) VFW L., LWC (DJS), late. Upland Sandpiper: 22 Jul (1) Metro Airport, DVC (*fide* CGD), only report. Ruddy Turnstone: 1, 13, 15 Sep (1/2/1) DRU (SJS, BHS, ARH, RDH *et al.*), only reports. Sanderling: 7 Aug (1) CCNWR (DWB); 25-26 Aug, 1 Sep (2/1) DRU (SJS, BHS *et al.*); 31 Aug (11) GSP (DTC, JPC), highest count of season; only reports. Semipalmated Sandpiper: 15 Jul (1) GSP (CGD), ers. Western Sandpiper: 12 reports 15 Jul - 6 Oct (highest total: 7), a substantial number of sightings for one season. Least Sandpiper: 11 Jul (1) MC (CGD), ers; 24 Nov (1) DRU (SJS, BHS), lrs, but species winters. White-rumped Sandpiper: 20 Aug (2) CCNWR (DWB), only report. Baird's Sandpiper: 26 Aug (2) DRU (CGD, Rocky J. Milburn *et al.*); 1 Sep (3) DRU (CGD *et al.*); 15 Sep (2) DRU (SJS, Victoria Janson *et al.*); only reports. Pectoral Sandpiper: 15 Jul (7) GSP (CGD), ers; 12 Aug (450+) DRU (SJS, BHS), highest count; 31 Oct (2) DBC (AHH), lrs. Dunlin: 27 Aug (1) CCNWR (RVM, Alice Savage), very early; 24 Nov (14) DRU (SJS, BHS), lrs, but species winters; only reports. Stilt Sandpiper: 25 Aug (33) DRU (SJS, BHS), highest count. Buff-breasted Sandpiper: 8 reports 20 Aug - 15 Sep from CCNWR, DRU and GSP; 8 Sep (24) DRU (SJS, M. Patricia Stallings), very high number, perhaps largest flock ever in state. Dowitcher sp.: 1 Sep (28) DRU (SJS, BHS, ARH), highest count of season. Common Snipe: 23 Jul (1) MOP

(BHS), ers. RED PHALAROPE: 6 Oct (1) RDL (Candace J. McCall, m.ob.), 4th NA record. Wilson's Phalarope: 18-25 Aug (1) DRU (SJS, BHS *et al.*); 23 Aug (3) GSP (CGD); only reports.

Gull - Swallow: Bonaparte's Gull: 3 Nov (15) PPL (RVM, TOS), ers. Forster's Tern: 23-29 Oct (6-10) FSM (TJW, RVM); 28 Oct (3) western SWC (DWB), getting late. Common Tern: 3 Nov (1) FSM (CPN, SJS, TOS), new NA late fall date, though a winter record exists. Black Tern: 3 reports 1-19 Aug. Black-Billed Cuckoo: 5 reports 19-27 Sep. Common Barn-Owl: 12 Sep (1 injured) near Madison, DVC (LFK), bird rehabilitated at Cumberland Museum and released in CHC. Great Horned Owl: 29 Aug (1 albino, though with yellow eyes, injured) Bedford Co. (*fide* Kevin schutt), being rehabilitated at Cumberland Bird Rehab. Foundation. Common Nighthawk: 27 Oct (1) Nashville (KAG), lrs. Chimney Swift: 7 Nov (3) Austin Peay St. Univ., Montgomery Co. (David H. Snyder); 8 Nov (1) WLC (RVM); 10 Nov (1) LOC (JCA); lingerers in warm weather. Ruby-throated Hummingbird: 5 Nov (1) CFC (CP), lrs. Olive-sided Flycatcher: 22 Aug (1) PWP (DFV); 15 Sep (1) near Hurricane Mills, HPC (CGD, MI *et al.*); only reports. Eastern Wood-Pewee: 27 Oct (6+) AWL (ARL *et al.*), large number for so late; 28 Oct (1) LOC (JCA), new NA late date. Least Flycatcher: 22 Sep (1 singing) Gallatin, SUC (DTC). *Empidonax* sp.: 20 Oct (1) MUR (TJW), late; thought to have been an Acadian. Scissor-tailed Flycatcher: until at least 5 Oct (1 ad, 1 imm present till early Sep) MUR (RVM *et al.*). Horned Lark: 30 Oct (1) CFC (CP), only report. Purple Martin: 26 Aug (2 ad feeding 2 y) Williamsport, MUC (Kenneth G. Anderson), late nesting. Tree Swallow: 4 Nov (2) FRR (BHS), lrs. Cliff Swallow: 7 Oct (1) SWC (DWB), lrs.

Nuthatch - Warbler: Red-breasted Nuthatch: 3 reports 10-23 Nov; no major influx for about 3rd year in row. Bewick's Wren: only 3 reports. Winter Wren: 2 Oct (1) BAH (RWS), ers. Marsh Wren: 3 reports 29 Sep - 20 Oct. Sedge Wren: 12 Aug (1 singing) DRU (SJS, BHS), ers; 13 Aug (15) CCNWR (DWB *et al.*), large number, some singing. Ruby-crowned Kinglet: 20 Sep (1) COL (WNJ), ers. Blue-gray Gnatcatcher: 24 Nov (1) DRU (SJS, BHS), lrs. Gray-cheeked Thrush: 8 Nov (1) Nashville (ATT), new NA late record. Hermit Thrush: 2 Oct (1) BAH (RWS), ers. Gray Catbird: 28 Oct (1) LOC (JCA), lrs. Yellow-throated Vireo: 26 Oct (1) MUR (TJW), ties NA late date; 27 Oct (1) AWL (CGD *et al.*), very late. Warbling Vireo: 10 Sep (1) CLA (AHH), lrs. Red-eyed Vireo: 27 Oct (2) AWL (ARL *et al.*), late. Philadelphia Vireo: 9 Sep (1) Leiper's Fork, WMC (BHS), ers; 27 Oct (2) AWL (ARL, SJS *et al.*), very late; 28 Oct (1) LOC (JCA), new NA late date. Golden-winged Warbler: 5 reports from 4 counties. **"LAWRENCE'S" WARBLER**: 21 Sep (1) RDL (CGD, John Bates *et al.*), first NA record of this hybrid. Tennessee Warbler: 29 Oct (1) CLA (AHH), lrs. Orange-crowned Warbler: 6 reports 7 - 27 Oct. Nashville Warbler: 4 Nov (1) MUR (Barbara Finney, SJS, TOS), lrs. Northern Parula: 3 Nov (1) LOH (SJS, CPN, TOS), new NA late date. Black-throated Blue Warbler: 6 Oct (1) MOP (WNJ); 7 Oct (1) Fernvale, WMC (John O. Ellis); only reports. Yellow-rumped Warbler: 26 Jul (1) LOR (DJS), remarkably early (or summering); next earliest 27 Sep (1) RDL (CGD). Blackburnian Warbler: 28 Oct (1) LOC (JCA), lrs. Yellow-throated Warbler, 25 Oct (1) MUR (TJW), lrs. Prairie Warbler: 19 Oct (1) PWP (DFV), new NA late date. Bay-breasted Warbler: 20 Aug (1) western Van Buren Co. (ATT), ers; this species was the most abundant warbler in the woods on some days this fall and almost rivaled the Tennessee Warbler as the commonest parulid of the season. Prothonotary Warbler: 3 Oct (1) Dover, SWC (DWB), lrs. Worm-eating Warbler: 30 Sep (1) RDL (SJS *et al.*), lrs. Northern Waterthrush: 28 Oct (1) DRU (SJS), lrs. Mourning Warbler: 3 reports 27 Sep - 7 Oct. Canada Warbler: 6 Oct (1) MC (DFV), lrs; 1 day shy of tying NA late date.

Tanager - Siskin: Summer Tanager: 27 Oct (1) LOC (JCA), lrs. Scarlet Tanager: 23 Oct (1) BAS (KAG); 27 Oct (1) COL (SJS); both late. Dickcissel: 27 Nov to EOP (1male) CLA (AHH), late, but occasionally winters (as this bird subsequently did). Chipping Sparrow: 24 Nov (1) DRU (BHS), lrs. Savannah Sparrow: 1 Sep (1) DRU (SJS, BHS, ARH), ers; 3 Sep (1) MC (DFV), new NA early date. Grasshopper Sparrow: 20 Oct (1) MC (*fide* SJS), lrs. Dark-eyed Junco: 6 Oct (1) CHC (CGD *et al.*), ers. SNOW BUNTING: 14-15 Nov (10) LOH (RVM, Marty Rush, Linda Bowman), 5th NA and 6th regional record; details to be published. Bobolink: 15 Sep (7) DRU (SJS, Mary Anne Guschke *et al.*); 29 Sep (8) PAP (SJS, Ruth Griffin *et al.*); rarely reported in fall, this species is more abundant than records show. Purple Finch: 3 Nov (1) Putnam Co. (RWS), ers; species was scarce at EOP. Pine Siskin: 27 Oct (10) BAH (RWS), ers; only a scattering of records by EOP, indicating no major incursion likely during the winter.

Corrigendum: In *Migrant* 55:20-21, 1984, delete from the entry for Buff-Breasted Sandpiper the following: "first NA record in 5 years."

Locations (and other abbreviations): AWL - Arrow Lake, Maury Co.; BAH - Barnes Hollow, Putnam Co.; BAS - Basin Spring, Williamson Co.; BYR - Byrdstown, Pickett Co.; CCNWR - Cross Creeks Nat. Wildl. Refuge, Stewart Co.; CFC - Coffee Co.; CHC - Cheatham Co.; CLA - Clarksville, Montgomery Co.; COL - Columbia, Maury Co.; DBC - Dunbar Cave State Park, Montgomery Co.; DRU - Duck River Unit, Tenn. Nat. Wildl. Refuge, Humphreys Co.; DVC - Davidson Co.; ers - earliest report of season; EWP -Edwin Warner Park, Davidson Co.; FRR - Franklin Reservoir, Williamson Co.; FKC - Franklin Co.; FSM - Fate Sanders Marina, Rutherford Co.; GSP - Gallatin Steam Plant, Sumner Co.; HPC - Humphreys Co.; LOC - Love Circle, Davidson Co.; LOH - Long Hunter State Park, Davidson Co.; LOR -Loretto, Lawrence Co.; lrs - latest report of season; MC - Metro Center, Davidson Co.; MOP - Monsanto Ponds, Maury Co.; MUC - Maury Co.; MUR - Murfreesboro, Rutherford Co.; NA - Nashville Area (Davidson Co. and parts of 7 surrounding counties); PAP - Pardue's Pond, Dickson Co.; PPL - Percy Priest Lake, Davidson, Rutherford and Wilson Cos.; PWP - Percy Warner Park, Davidson Co.; RDL - Radnor Lake, Davidson Co; QUL - Quarry Lake, Rutherford Co.; RUC - Rutherford Co.; SUC - Sumner Co.; SWC - Stewart Co.; WDR - Woods Reservoir, Franklin Co.; WLC -Wilson Co.; WMC - Williamson Co.

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EASTERN RIDGE AND VALLEY REGION—The weather in the Johnson City area was very dry with above average temperatures. There was only 0.8 inches of rain in September, and 1.3 inches in October. October was 6 or 7°F above average, and was the warmest on record. The first killing frost there did not occur until 7 November, almost a month later than normal.

At Knoxville, August weather was near normal. September was clear, warm and dry. The September rainfall totaled 0.7 inches, 2 below normal, and most of that fell on the 30th. October and November rainfall was near normal. A weak cold front passed through Knoxville on 22-23 August, then a stronger one, which set record low temperatures (mid-40°F), passed through 6 September, followed by one on 8-9 September. There was little frontal activity until a front on 30 September - 1 October, which pushed many birds with it. A tower kill occurred as this front arrived, and 749 birds of 34 species were collected. See *Migrant* 55: 86, 1984 for details of the kill. The last few days of October were very warm, with a record high of 82° on 25 October. The first heavy frosts did not occur at Knoxville until the second week of November.

Chattanooga registered 2.5 inches of rain during August, somewhat lower than normal. September was very dry with a deficit of 3.8 inches of rainfall, while October was 3.46 inches above average and November near normal. The temperature at Chattanooga was somewhat cooler than average during August and September, warmer in October and cooler again in November.

All of the above weather factors probably had an effect on the avian population, with many birds a bit later than average in arriving, many staying later than normal and with several setting new late departure dates. There were a few reports of apparent reverse migration, such as a flock of Chimney Swifts (after an absence of weeks) and 3 flocks of Turkey Vultures seen flying to the NE at Norris on 29 October. A similar sighting of 25 swifts was noted at Chattanooga on 28 October.

Rick Knight again operated a banding station at Austin Springs from 16 September through 1 November, approximately the same dates as the last 4 years. The 598 birds of 40 species were the highest totals of both categories recorded to date, and there were several seldom caught birds. Chuck Nicholson operated his banding station at Norris from 12 August to 28 October. Using 7-10 nets, he banded 708 individuals of 62 species at a rate of 93/100 net hours, the lowest rate in 5 years of running the station.

Cattle Egrets were noted in the Hiwassee River Area and peaked at a total of 27 birds while the White Ibis invasion alluded to in the previous summer report peaked in the same area at 20 individuals. No large movement of waterfowl was noted. Extensive dredging and dike construction at Kingston Steam Plant greatly reduced the amount of shorebird habitat, and there were fewer than average reports from this formerly productive area.

Loon - Ibis: Common Loon: first 3 Nov (1) Warriors Path (MD); 5 Nov (16) BOL (RLK); 4-30 Nov (1-9) CHL (KHD, LHD). Pied-billed Grebe: 7 Aug (3) KSP (ARH, BHS, SJS); 30 Aug (1) HRA (AMJ, EMR); 31 Aug (1) AUS (RH, JW); 24 Nov (26 in raft) FLL (MLD, JAK);; 24 Nov (14) BLC (JAK); 26 Sep - 26 Nov (1-40) HRA (KHD, LHD); 26 Nov (154) CHL (KHD, LHD). Horned Grebe: 24 Nov (2) BLC (JAK); 20-30 Nov (1-19) CHL (KHD, LHD). Red-necked Grebe: 24 Nov (2) NIL (JTP), details in *Migrant* 56: 14, 1985. Double-crested Cormorant: 18 Sep - 11 Nov (1-18) AUS (RLK); 15 Oct (1) HRA (KHD, LHD); 4 Nov (1) BLC (JAK); 12 Nov (1) CHL (KHD, LHD); late Nov (1) FLL (PSP, MLD). American Bittern: 20 Nov (1) SAB (KHD). Least Bittern: 30 Sep (1) KNC (ABS). Great Blue Heron: regular, max 27 Oct (240) DOL (JAK). Great Egret: 1 Aug - 2 Oct (1-3) AUS (LHTOS); 31 Jul - 14 Sep (up to 11) EBF (LJF); 11 Aug - 6 Oct (max 44) DOL (JAK, WKJ); 16 Aug (1) Watts Bar Lake (CPN); regular HRA to 10 Nov, max 19 (KHD, LHD *et al.*). Snowy Egret: 25 Aug - 1 Sep (1-2) HRA (PDR, CDB, AMJ, EMR). Little Blue Heron: 1-11 Aug (max 8) HAR (KHD, LHD, *et al.*); 26 Aug - 1 Sep (1-4)

DOL (JAK). Cattle Egret: 7 Sep - 18 Oct (1-27) HRA (PHD *et al.*). Green-backed Heron: up to 10 regular to 15 Sep DOL (JAK); max 24 Aug (25) HRA (KHD, LHD); last 8 Oct (1) SAB (LHD). Black-crowned Night-Heron: 9 Nov (8) LOC (JAK). Yellow-crowned Night-Heron: 31 Aug (1) AUS (LHTOS); 1 Nov (1 ad) CHA (RAR). White Ibis: 1-11 Aug (max 9) HAR (KHD, LHD, PCH, TJW *et al.*)—present until the area went dry! 11 Aug (1) SAB (KHD, LHD); 5 Aug - 1 Sep (max 20) HRA (CDB, PCH, AMJ *et al.*)—all imm except 1 ad noted only once; 5-6 Sep (3-5 imm) DOL (WKJ *et al.*).

Waterfowl: Tundra Swan: 5 Nov (1) BOL (RLK); 29-30 Nov (1) CHL (James C. Brown). Gr. White-fronted Goose: 10-26 Nov (1 ad) HRA (KHD, LHD *et al.*). Snow Goose: 18 Nov (1) SAB (LHD, JTP *et al.*); 26 Nov (3) HRA (KHD, LHD). Snow Goose (blue morph): 16 Oct (2) WHP (JAK); 26 Nov (10) HRA (KHD, LHD). Canada Goose: max 400 HRA (KHD, LHD). Green-winged Teal: 12 Nov (max 250) HRA (KHD, LHD); 17-25 Nov (12-22) DOL (JAK). Amer. Black Duck: 6 Oct - 25 Nov (11-60) DOL (JAK). Mallard: 25 Nov (580) DOL (JAK). Northern Pintail: 10 Oct (1) AUS (RLK); max 12 Nov (50) HRA (KHD, LHD). Blue-winged Teal: 26 Aug - 9 Sep (8-47) DOL (JAK); few large numbers noted in southern part of region with max of 50 at SAB (KHD, LHD), last report 26 Nov (1) SAB (KHD, LHD). Northern Shoveler: 2 Nov (10) KSP (RLK, RH). Gadwall: 29 Sep (1) AUS (RLK, RC). American Wigeon: first 4 Nov (1) NIL (AMJ); 11 Nov (40) DOL (JAK). Canvasback: 18 Nov (2) SAB (JTP). Redhead: 15 Nov (3) BLC (JAK); 18 Nov (2) SAB (LHD). Ring-necked Duck: 30 Sep (2) KNC (ABS), early; 29 Oct (15) SAB (KHD, LHD); 25 Nov (170) DOL (JAK). Greater Scaup: first 6 Nov (15) CHL (KHD). Lesser Scaup: 13 Nov (30) HRA (KHD, LHD); 24 Nov (3) BLC (JAK); 20-26 Nov (30-100) CHL (KHD, LHD). Surf Scoter: 1 Oct (3) AUS (RLK). Bufflehead: first 4 Nov (5) NIL (AMJ). Hooded Merganser: 11-15 Nov (4-10) DOL (JAK); max 20 Nov (112) HRA (KHD, LHD). Red-breasted Merganser: 12 Nov (1) CHL (KHD, LHD); 13 Nov (2) HRA (KHD, LHD). Ruddy Duck: 4 Nov (1) BLC (JAK); 11 Nov (3) BOL (RLK); 12-30 Nov (1-23) CHL (KHD, LHD); 17 Nov (1) DOL (JAK).

Vulture - Crane: Turkey Vulture: several migrating flocks observed 13 Oct - 3 Nov in KNX area (*fide* CPN); 29 Oct (3 flocks, total 150+) flying to NE over NOR (LJF, CPN). Osprey: 14 Nov (1) CHA (RAR). Bald Eagle: 3 Sep (1 imm) (RLD), 12 Nov (4) Racoon Mountain Reservoir, Marion Co. (RLD, LKD). Golden Eagle: 17 Nov (1 ad) I-81 at Kingsport exit (JAT). Peregrine Falcon: 29 Sep, 1 Oct (1) AUS (RLK, RC); 2 Oct (1) JEC (*fide* D.W. Yambert)—found injured, rehabilitated, released on Chilhowee Mt. 1 Nov. Ruffed Grouse: 9 Oct (1) COL (Edgar O. Grundset)—not known to be resident in this area. King Rail: 10 Oct (1) HRA (RCS). Virginia Rail: 29 Sep (1) AUS (RLK, RC); 30 Sep (2) KNC (ABS, Maurice Grigsby). Sora: 2 Oct (1) AUS (RLK). Common Moorhen: 23-26 Aug (1 imm) HRA (AMJ, CDB). American Coot: 4 Nov (200) BLC (JAK); regular, max 6 Nov (2550) CHL (KHD). Sandhill Crane: 13 Nov - 3 Dec (at least 5 flocks seen or heard) KNX area (*fide* JBO, JCH); 11 sightings of 475 birds in Hamilton and Meigs Cos. between 30 Sep - 21 Nov (KHD, LHD, RAR, PDR, CWC, THP).

Plover - Tern: Black-bellied Plover: 9-23 Sep (1-2) DOL (JAK); 26-29 Oct (1-2) SAB (KHD, LHD). Lesser Golden-Plover: 1-12 Oct (1-2) AUS (RLK *et al.*); 26 Oct (1) SAB (KHD, LHD). Semipalmated Plover; 6-7 Aug (3-5) KSP (KHD, LHD, ARH, SJS, BHS); 23 Sep (2) DOL (JAK). Greater Yellowlegs: 25 Aug (4) HRA (ACD *et al.*); 23 Sep (3) DOL (JAK); 4-23 Oct (1-3) AUS (RLK *et al.*); 11 Nov (4) AUS (RLK); 14-25 Nov (4) JEC (JAK). Lesser

Yellowlegs: 7 Aug (4) KSP (ARH, SJS, BHS); 23 Aug - 23 Oct (1-7) AUS (LHTOS); 25 Aug - 12 Nov (1-22) HRA (KHD, LHD *et al.*); 6 Oct (1) DOL (JAK). Spotted Sandpiper: 11 Aug (1) DOL (JAK). Marbled Godwit: 24 Aug (1) KSP (KHD). Sanderling: 6 Aug (1) KSP (KHD, LHD). Semipalmated Sandpiper: 6-18 Aug (2-5) KSP (KHD, LHD); 22 Sep (1) BLC (JAK); 23 Sep (2) DOL (JAK). Western Sandpiper: 6 Aug (2) KSP (KHD, LHD); 13 Sep (1) JNB (RLK); 15 Oct (1) SAB (KHD, LHD). Least Sandpiper: 6-7 Aug (6-12) KSP (ARH, SJS, BHS, KHD, LHD); 23 Sep (1) DOL (JAK); 24 Aug - 5 Nov (6-15) HRA (KHD, LHD). White-rumped Sandpiper: 7 Aug (2) KSP (ARH, SJS, BHS). Pectoral Sandpiper: 18 Aug - 5 Nov (1-6 irregular) HRA (KHD, LHD); 22 Sep (3) BLC (JAK); 23 Sep (23) DOL (JAK); 20 Oct (20) DOL (JAK). Dunlin: 18 Oct - EOP (1-110) HRA (KHD, LHD); 21 Oct - EOP (1-42) SAB (KHD, LHD); 17 Nov (104) DOL (JAK). Stilt Sandpiper: 7 Aug (1) KSP (ARH, SJS, BHS). Short-billed Dowitcher: 24 Aug (2) KSP (KHD, LHD); 1 Sep (1) HRA (LHD, CDB). Common Snipe: first 29 Sep (1) AUS (RLK, RC); max 114 SAB (KHD, LHD). American Woodcock: 18 Nov (1) BLC (JAK). Wilson's Phalarope: 25 Aug (1) HRA (PCH, KHD, LHD, JTP *et al.*). Bonaparte's Gull: 29 Oct (1) HRA (KHD, LHD). Ring-billed Gull: first report 30 Sep (3) Signal Point (KHD, THP), early; 24 Nov (200) BLC (JAK). Herring Gull: 4 Nov (1) CHL (LHD). Caspian Tern: 1 Oct (8), 18 Oct (6) AUS (RLK, GDE); 10 Nov (1) HRA (CPN, JAT *et al.*). Common Tern: 1 Oct (13) AUS (RLK); 2 Oct (2) HRA (PCH); 21 Oct (1) BOL (RLK). Forster's Tern: 9 Aug (2) AUS (SG); 27 Oct (1) DOL (JAK). Black Tern: 4 Aug (2) SAB (KHD, LHD); 25 Aug (1) SAB (PCH, PDR *et al.*).

Owl - Pipit: Common Barn-Owl: 19 Sep - 25 Oct (1 irregular) AUS (RLK). Common Nighthawk: 30 Oct (1) KNX (PDH); 31 Oct (1) JNB (RLK), last reports. Chuck-will's-widow: 5 Oct (1), roosting on tree limb at Burlington Post Office, KNC (JAK). Chimney Swift: 28 Oct (25) CHA (*fide* KHD); 29 Oct (15 flying to NE) NOR (LJF, CPN). Red-headed Woodpecker: very good migration in Elizabethton-Johnson City area, last report 30 Oct (LHTOS); only 3 reports from KNX area (MD, LJF, PDH, CPN); first of 7 wintering birds arrived CHA 13 Oct (RAR). Olive-sided Flycatcher: 1 Oct (1) CHA (RAR). Eastern Wood-Pewee: 27 Oct (1) KNX (JCH), record late date there. Acadian Flycatcher: 1 Oct (1 banded) AUS (RLK). Least Flycatcher: 24 Sep (1), 7 Oct (1) AUS (RLK), both banded. Great Crested Flycatcher: 25 Sep (1) KNX (JCH), record late date there. Eastern Kingbird: 30 Aug large flock of 120-150 noted migrating S over Hiwassee River, Meigs Co. (AMJ, EMR); last 10 Sep (2) SAB (KHD, LHD). Horned Lark: 40+ regular WHP (JAK); 4 Nov (50) BLC (JAK); 25 Nov (80) Greene Co. (JAK). Purple Martin: no large flocks reported, last sighting 29 Aug (1) CHA (RAR). Tree Swallow: 1-2 Oct (25-50) AUS, last sighting there 24 Oct (RLK *et al.*); 5 Sep (7) CHA (RAR). N. Rough-winged Swallow: 18 Oct (3) COL (CDB). Common Raven: 30 Oct (3) AUS (RLK). Brown-headed Nuthatch: 16 Nov (6) Chickamauga Dam area (RAR). Brown Creeper: 30 Sep (1) KNC (LJF, Don Power), record early date for area. House Wren: last 13 Nov (1) KNX (Jim & Betty Mason), late. Sedge Wren: 1 Aug - 3 Sep (1-2 singing regularly) SAB (KHD, LHD); 12 Oct (1) AUS (RLK); 29 Oct (1) CHA (RAR). Marsh Wren: 29 Sep (2) AUS (RLK, SG, RC); 17-18 Oct (1) AUS (RLK). Golden-crowned Kinglet: later than average at KNX, but unusually common there by end of period (JCH, CPN). Veery: later than average KNX, 29 Sep (1 banded) NOR (CPN); 30 Sep (2) KNX (CPN, JMC); 10 Oct (1) CHA (RAR). Gray-cheeked Thrush: 21 Oct (1) KNX (JCH), late. Swainson's Thrush: 16 Oct (1)

COL (CDB). Gray Catbird: 1 Nov (1) CHA (RAR). Water Pipit: 19 Oct - 1 Nov (2-13) AUS (RLK *et al.*); 27 Oct (8) DOL (JAK); early report 23 Aug (1) HRA (AMJ), then next record 13 Nov (2) HRA (KHD, LHD).

Vireo - Warbler: White-eyed Vireo: 1 Nov (1) KNX (JCH); 1 Nov (1) CHA (JTP), both late reports. Philadelphia Vireo: 27 Oct (1) KNX (JAK), late. Tennessee Warbler: 4 banded AUS, last 26 Oct (RLK); 12 Nov (1, window kill) CHA (PDR). Orange-crowned Warbler: 22 Oct (1) JNC (SG). Nashville Warbler: 28 Sep (1) CHA (RAR); 2 banded AUS, last sighting there 12 Oct (RLK). Magnolia Warbler: 7 banded AUS, last 7 Oct (RLK); last 28 Oct (1 banded) NOR (CPN). Black-throated Blue Warbler: last 27 Oct (1) KNX (JAK). Yellow-rumped Warbler: first report 24 Sep AUS, 27 later banded there (RLK). Yellow-throated Warbler: 28 Oct (1) KNX (JCH), record late date. Palm Warbler: 25 banded AUS, last 8 Nov (RLK); 17-25 Nov (6) WHP (JAK). Bay-breasted Warbler: present in lower than average numbers NOR, only 6 banded (CPN). Ovenbird: 21 Oct (1) NOR (CPN), late. Northern Waterthrush: 3 banded AUS, last report there 19 Oct (RLK). Connecticut Warbler: 26-27 Sep (2 banded) AUS (RLK). Mourning Warbler: 5 Oct (1 banded) AUS (RLK). Common Yellowthroat: 41 banded AUS, last 29 Oct (RLK). Wilson's Warbler: 18 Sep (1), 1 Oct (1) CHA (RAR).

Tanager - Finch: Scarlet Tanager: 27 Oct (1) KNX (JCH), record late date. Rose-breasted Grosbeak: 28 Aug (1) CHA (RAR); 27 Oct (1 banded) NOR (CPN), late. Indigo Bunting: stayed later than average KNX, last there 27 Oct (JCH), 28 Oct in NOR (CPN), and 29 Oct CHA (RAR). Vesper Sparrow: 2-30 Oct (1-2) AUS (RLK *et al.*). Savannah Sparrow: 15 Aug (1) AUS (RH, SG), early. Grasshopper Sparrow: 11 Aug last sighting WHP (JAK); 19 Oct (1) AUS (RLK, late. **SHARP-TAILED SPARROW**: 29 Sep (1), 2 Oct (1) AUS (RLK, RC). Fox Sparrow: 6 Oct (1 banded) AUS (RLK). Song Sparrow: 16 Sep - 30 Oct (168 banded) AUS (RLK). Lincoln's Sparrow: first 17 Sep AUS, 24 later banded there (RLK); 30 Sep (1) KNX (S. Bostick, F. Bills). Swamp Sparrow: 61 banded AUS (RLK). Bobolink: 26 Aug (1) SAB (KHD); 7 Sep (15) CHA (AMJ, EMR); 19 Sep (40) JNB (RLK); 21 Sep - 25 Oct (1-7) AUS (RLK). Orchard Oriole: 1-15 Aug (2-4 occasional) SAB (KHD, LHD). Purple Finch: first report 24 Oct in JNC (HHD), very few there by EOP; late in arriving at KNX, first area report 12 Nov (4) NOR (CPN), then only few reports of low numbers; no reports from CHA. House Finch: up to 17 Aug max 25 being fed in Tennessee River Gorge (Barbara T. Claiborne); wintering flocks of 5-15 birds started mixing with resident finches in late Oct at JNC (LHTOS). Pine Siskin: only report, 24 Nov (1) KNX (PSP). American Goldfinch: 110 banded AUS (RLK).

Locations: AUS - Austin Springs, Washington Co.; BLC - Blount Co.; BOL - Boone Lake; CHA - Chattanooga; CHL - Chickamauga Lake; COL -Collegedale; DOL - Douglas Lake; EBF - Eagle Bend Fish Hatchery, Anderson Co.; FLL - Fort Loudon Lake; HAR - Harrison; HRA - Hiwassee River Area; JEC - Jefferson Co.; JNC - Johnson City; JNB - Jonesborough; KSP -Kingston Steam Plant; KNC - Knox Co.; KNX - Knoxville; LOC - Loudon Co.; NIL - Nickajack Lake; NOR - Norris; SAB - Savannah Bay, Hamilton Co.; WHP - White Pine.

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EASTERN MOUNTAIN REGION—This was a very mild fall, with below average rainfall and above average temperatures throughout. At the northern end of the region, September rainfall totaled 0.8 inches and October rainfall was 1.3 inches, both figures well below normal. October temperatures averaged 7°F above normal, making it the warmest October on record. The first killing frost was 7 November, almost a month later than normal. As a result of the warm weather, there was much field activity, and several exciting observations were reported. There were, however, very few reports of "northern finches" by the end of the period, and it does look like it will be a good winter for these species.

Loon - Duck: Common Loon: 10 Nov (10) WTL (RLK, RC), first report. Horned Grebe: 12 Nov (6) WTL (LHTOS). Double-crested Cormorant: 13 Dec (1) WTL (RLK). Green-backed Heron: last report 5 Oct (1) ELI (GDE). Yellow-crowned Night-Heron: last report 24 Sep (1) ELI (GDE). **TUNDRA SWAN**: 11-13 Nov (1) WTR (GDE, GOW); 23 Nov (12) SHL (Wallace Coffey). Wood Duck: present in good numbers at EOP. Green-winged Teal: 12-25 Nov (3-6) WTR (LHTOS). Northern Pintail: 12-30 Nov (1) WTR (LHTOS). Gadwall: 5-30 Nov (1) WTR (LHTOS). Ring-necked Duck: only 1 report on WibL by EOP. Bufflehead: 4 Nov (37) WIL (GDE), first report. Hooded Merganser: 12 Nov (2) WTR (RLK), first report. Red-breasted Merganser: 12 Nov (7) WTL (RLK); 30 Nov (23) WTL (GS, MD). Ruddy Duck: 12 Nov (20) WTL (RLK); 21 Nov (7) WTL (GDE, GWS).

Vulture - Owl: Black Vulture: 3 Nov (2) ELI (RC). Osprey: in ELI area 23 Aug - 21 Oct (LHTOS). Bald Eagle: 6 Nov (1 imm) ELI (HLF). Northern Harrier: 29 Sep (1) ELI (JW, Herb Armentrout); 26 Oct (1) RNM (GDE, GWS). Sharp-shinned Hawk: 7 reports in ELI area, about average. Cooper's Hawk: 3 reports in ELI area, below average. Red-shouldered Hawk: 27 Aug (1) GSMNP (RLK). Broad-winged Hawk: last report 27 Sep (1) ELI (HLF). Golden Eagle: 21 Nov (1 imm) Hampton (GDE, GWS). Merlin: 29 Sep (1) ELI airport (GOW). **PEREGRINE FALCON**: 2 birds hacked during August from Greenbriar Pinnacle, GSMNP (RLK *et al.*); 16 Nov (1) WTL (RC, RH). Virginia Rail: 2 Oct (1) ERW (*fide* TWRA personnel). Greater Yellowlegs: 9 Aug (2) heard calling in flight over GSMNP (RLK). Sanderling: 21 Aug - 18 Sep (1-3) SJP (LHTOS). Western Sandpiper: 31 Aug - 6 Sep (1-2) SJP (RLK). Dowitcher sp.: 23 Aug (1) SJP (Arthur Smith). Caspian Tern: 11 Sep (4) WTL (HHD, Kat Bierly). Forster's Tern: 19 Aug (1) WTL (GDE). Black Tern: 19 Aug (1) WTL (GDE). Yellow-billed Cuckoo: last report 11 Oct (1) IMG (RH). Barn Owl: 3 Nov, nest tree cut down with 1 y almost ready to fly, hand fed for one week, then released,ELI (GOW). Great Horned Owl: 5-8 regular around SHL (RPL *et al.*).

Woodpecker - Shrike: Red-headed Woodpecker: good fall flight at ELI, with 1 present to EOP along WTR (LHTOS). Yellow-bellied Sapsucker: 8 Oct (10) ERW (GWS), first report. Great-crested Flycatcher: last report 29 Sep (1) UNI (SG, GWS). Purple Martin: last report 21 Aug (3) ELI (GDE). Tree Swallow: 27 Aug (1) GSMNP (RLK). Cliff Swallow: 14 Aug (12-15), 4 Sep (4) GSMNP (RLK). Brown Creeper: 29 Sep (1) RNM (EHS). Veery: last report 29 Sep (2) RNM (EHS), late. Gray-cheeked Thrush: 29 Sep (1) UNI (SG, GWS), only report. Swainson's Thrush: present in ELI area 5 Sep - 26 Oct (LHTOS). Hermit Thrush: 21 Nov (4) WTL (GDE, GWS), first report. Loggerhead Shrike: 29 Sep (10) Siam Valley, ELI (GOW), only report.

Vireo - Siskin: Solitary Vireo: last 26 Oct (3) RNM (GDE, GWS). Philadelphia Vireo: 1-18 Oct (1-2) ELI (HLF). Tennessee Warbler: 1 Sep (1) GSMNP (RLK), first report. Orange-crowned Warbler: 26 Oct (12) RNM, 4000' elev. (GDE, GWS). Nashville Warbler: 9 Sep (1) RNM (GOW). Magnolia Warbler: 28 Aug (1) GSMNP (RLK), first report. Cape May Warbler: 5 Sep - 26 Oct (1-5) ERW (GWS). Yellow-rumped Warbler: 27 Sep (1) ERW (GWS), first report. Palm Warbler: last report 8 Nov (1) ELI (HLF). Worm-eating Warbler: 3 Aug (1) GSMNP (RLK). Swainson's Warbler: 13 Sep (1) UNI (GWS). Ovenbird: last report 14 Oct (1) WTL (GDE). Common Yellowthroat: last report 29 Oct (1) ELI (HLF). Chipping Sparrow: 21 Nov (5) WTL (GDE, GWS), late. Vesper Sparrow: 26 Nov (1) RNM (GDE, GWS). Fox Sparrow: 31 Oct (1) SHL (RPL), first report. Northern Oriole: last report 11 Sep (1) ERW (GWS). Purple Finch: 19 Oct (1) ELI (MD), first report; only 3 other reports by EOP. Pine Siskin: 26 Oct (25), 23 Nov (16) RNM (GDE, GWS, RLK).

Locations: ELI - Elizabethon; ERW - Erwin; GSMNP - Greenbrier Pinnacle area, Great Smoky Mountains Nat. Park; RNM - Roan Mountain; SHL - South Holston Lake; UNI - Unicoi; WIL - Wilbur Lake; WTL - Watauga Lake; WTR - Watauga River.

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THE BREEDING BIRDS OF REELFOOT LAKE, TENNESSEE

The Tennessee Ornithological Society's 1984 Foray

T. David Pitts

The Tennessee Ornithological Society (TOS) held its 1984 foray at Reelfoot Lake on 12 May and 21-24 June. Additional observations were made during other parts of the nesting season. The primary objective of the foray was to determine breeding bird numbers and distribution, but neither foray date was at the peak of nesting activity. April weather was abnormally wet and cool, and early May was stormy with heavy rain and tornado strength winds in northwest Tennessee. Nesting and migration were delayed in several species; consquently, many of the 150 species recorded on 12 May were transients. Virtually all 87 species recorded 21-24 June could be considered nesting species. Some species had completed nesting and were relatively inconspicuous; this caused a lower count than an early June survey would have shown. The foray was restricted to Reelfoot Lake and the adjacent publicly owned lands: Reelfoot National Wildlife Refuge, Reelfoot Lake State Park, and the Reelfoot Wildlife Management Area. All of the foray area lies in the Mississippi River floodplain, with the west half in Lake County and the east half in Obion County. No data from the bluffs to the east of Reelfoot Lake or from the batture land west of the lake are included in this report.

On 12 May, 11 parties participated in the foray. Seven parties were in boats and 4 were on land; several of the boat parties spent time on land in remote parts of the lake. Each party was assigned a separate part of the foray area, resulting in little overlap of results. On 21 June, 2 parties (1 by boat and 1 by car) worked the foray area. On 22 June 1 boat party was in the area, and on 23-24 June 1 land party worked the area. Weather was excellent for all of the foray except for showers on 23 June.

A summary of the formation of Reelfoot Lake in 1811-1812 and the subsequent settlement of the area is given by Smith and Pitts (1982). The same report also presents a physical, chemical, and biological description of Reelfoot Lake. J.J. Audubon journeyed on the Mississippi River several times, but left no notes indicating he had visited the Reelfoot Lake area (Deaderick 1940). The first extensive ornithological records for the Reelfoot Lake area are apparently those of Pindar (1889, 1925) for the years 1884-1893 from Fulton Co., Kentucky, which is north of Reelfoot Lake and includes a small part of the Reelfoot Lake watershed and the north end of what is now the Reelfoot National Wildlife Refuge. A.F. Ganier began visiting Reelfoot Lake in 1911 and published many of his observations; his summary of the aquatic birds of Reelfoot Lake (1933) is especially valuable. Ben B. Coffey, Jr., and his wife Lula, began birding the Reelfoot Lake area in the 1920's and continue to do so; most of their observations remain unpublished. Wendell Whittemore spent the summer of 1936 at the Reelfoot Lake Biological Station; the summary of his notes (Whittemore 1937) provides a basis for detecting changes in bird populations furing the past 50 years. Mengel in his *Birds of Kentucky* (1965) included many notes on Reelfoot Lake birds. Two Breeding Bird Survey routes border, in part, Reelfoot Lake; Christmas Bird Counts have been held at Reelfoot Lake since 1934; numerous TOS spring meetings and field trips have taken place at Reelfoot Lake; and, many individual visits to Reelfoot Lake have been reported. In spite of all of this documentation, the current status of many breeding, or potentially breeding, birds on Reelfoot Lake was not known. Relatively few reports in the last 25 years deal with areas of the lake accessible only by boat; most reports concern areas accessible by automobile.

FORAY RESULTS

Foray results are presented in the form of lists of the relative abundance of species found on 12 May and on 21-24 June, and an annotated list. Available evidence indicates those 93 species marked by asterisk nested at Reelfoot Lake in 1984.

RELATIVE ABUNDANCE: 12 May

The 150 species observed on 12 May are listed below in order of abundance. 1. Red-winged Blackbird*; 2. Indigo Bunting*; 3. European Starling*; 4. Blackpoll Warbler; 5-6. Common Grackle*, Great Blue Heron*; 7. Northern Cardinal*; 8-9. Common Yellowthroat*, Eastern Kingbird*; 10. Blue-gray Gnatcatcher*; 11. Prothonotary Warbler*; 12. Wood Duck*; 13. Carolina Chickadee*; 14. Great Crested Flycatcher*; 15. Brown-headed Cowbird*; 16. Tufted Titmouse*; 17. Carolina Wren*; 18. Cedar Waxwing; 19. American Coot*; 20-21. American Crow*, Red-bellied Woodpecker*; 22-24. Yellow-rumped Warbler, White-eyed Vireo*, Chimney Swift*; 25. Tennessee Warbler; 26. Dickcissel*; 27. Eastern Wood Pewee*; 28. Swainson's Thrush; 29. Red-headed Woodpecker*; 30. Acadian Flycatcher*; 31. Red-eyed Vireo*; 32. Great Egret*; 33. Barn Swallow*; 34. Mallard*; 35. Pileated Woodpecker*; 36. Northern Parula*; 37. Tree Swallow*; 38-39. Downy Woodpecker*, Mourning Dove*; 40. Summer Tanager*; 41-43. American Redstart*, Gray-cheeked Thrush, Blue Jay*; 44. Ruby-throated Hummingbird*; 45-46. Purple Martin*, Blue-winged Teal; 47. Wood Thrush*; 48. Baird's Sandpiper; 49. Rose-breasted Grosbeak; 50. Bobolink; 51. Turkey Vulture*; 52. House Sparrow*; 53. Kentucky Warbler*; 54. Yellow-billed Cuckoo*; 55. Barred Owl*; 56. Gray Catbird*; 57. Cattle Egret; 58-60. Bay-breasted Warbler, Magnolia Warbler, White-breasted Nuthatch*; 61-64. Common Moorhen*, Wild Turkey*, Northern Oriole*, Yellow-throated Warbler*; 65. Red-shouldered Hawk*; 66-68. Horned Lark*, Lesser Yellowlegs, Killdeer*; 69. Greater Yellowlegs; 70-74. Cerulean Warbler*, Rough-winged Swallow*, Hairy Woodpecker*, Least Sandpiper, American Goldfinch*; 75-76. Palm Warbler, American Robin*; 77-83. Orchard Oriole*, Eastern Meadowlark*, Yellow-breasted Chat*, Yellow Warbler*, Northern Flicker*, Semipalmated Sandpiper, Mississippi Kite*; 84-85. Pectoral Sandpiper, Canada Warbler; 86-90. Chestnut-sided

Warbler, Yellow-throated Vireo*, Caspian Tern, Black Vulture*, Little Blue Heron; 91-92. Swainson's Warbler*, Least Bittern*; 93-98. Semipalmated Plover, Solitary Sandpiper, Osprey*, Warbling Vireo*, Eastern Bluebird*, Eastern Phoebe*; 99-102. Hooded Warbler*, Belted Kingfisher*, Yellow-crowned Night-Heron*, Pied-billed Grebe; 103-107. Northern Mockingbird*, Common Nighthawk*, Spotted Sandpiper, Green-backed Heron*, Rufous-sided Towhee*; 108-116. White-throated Sparrow, Wilson's Warbler, Louisiana Waterthrush*, Northern Waterthrush, Nashville Warbler, Brown Thrasher*, Forster's Tern, Northern Bobwhite*, Lesser Scaup; 117-119. Least Flycatcher, Ovenbird, Rock Dove*; 120-134. Blackburnian Warbler, Philadelphia Vireo, Loggerhead Shrike*, Veery, Fish Crow*, Dowitcher sp., Sora, Canada Goose, American Bittern, Lincoln's Sparrow, Field Sparrow*, Scarlet Tanager, Black-and-white Warbler, Black-billed Cuckoo, Ring-billed Gull; 135-150. Blue Grosbeak*, Mourning Warbler, Black-throated Green Warbler, Cape May Warbler, Golden-winged Warbler, Worm-eating Warbler, Sedge Wren, House Wren, Willow Flycatcher*, Willet, Virginia Rail, King Rail, American Kestrel*, Red-tailed Hawk, Snowy Egret, Double-crested Cormorant.

RELATIVE ABUNDANCE: 21-24 June

The 87 species observed on 21-24 June are listed below in order of their observed abundance. 1. Red-winged Blackbird*; 2. Indigo Bunting*; 3. Common Grackle*; 4. Prothonotary Warbler*; 5. Wood Duck*; 6. Great Blue Heron*; 7. Northern Cardinal*; 8. Common Yellowthroat*; 9. House Sparrow*; 10. Horned Lark*; 11. Tufted Titmouse*; 12. Blue-gray Gnatcatcher*; 13. Carolina Wren*; 14-15. Eastern Bluebird*, Eastern Wood Pewee*; 16. Brown-headed Cowbird*; 17. American Crow*; 18-19. Red-bellied Woodpecker*, Yellow-billed Cuckoo*; 20. White-eyed Vireo*; 21. Northern Parula*; 22. Carolina Chickadee*; 23. Red-headed Woodpecker*; 24-25. Barn Swallow*, Acadian Flycatcher*; 26. Great Crested Flycatcher*; 27-28. Chimney Swift*, Turkey Vulture*; 29. Dickcissel*; 30. Red-eyed Vireo*; 31. Purple Martin*; 32. Yellow-throated Warbler*; 33. Least Bittern*; 34. Northern Rough-winged Swallow*; 35. Ruby-throated Hummingbird*; 36-37. Common Moorhen*, Wild Turkey*; 38-40. Summer Tanager*, Yellow-breasted Chat*, Kentucky Warbler*; 541-47. Warbling Vireo*, European Starling*, American Robin*, White-breasted Nuthatch*, Northern Flicker*, Mourning Dove*, Mississippi Kite*; 48-51. Northern Oriole*, Wood Thrush*, Mourning Dove*, Red-shouldered Hawk*; 52. American Goldfinch*; 53-57. Yellow Warbler*, Orchard Oriole*, Eastern Meadowlark*, Mallard*, Pileated Woodpecker*; 58-60. Field Sparrow*, Tree Swallow*, Purple Gallinule*; 61. Barred Owl*; 62-63. Cerulean Warbler*, Killdeer*; 64-67. Willow Flycatcher*, Eastern Phoebe*, Great Egret*, Green-backed Heron*; 68-72. Chipping Sparrow*, Northern Mockingbird*, Blue Jay*, Hairy Woodpecker*, American Coot*; 73-80. American Redstart*, Swainson's Warbler*, Fish Crow*, Eastern Kingbird*, Belted Kingfisher*, Eastern Screech-Owl*, Osprey*, Black Vulture*; 81-87. Rufous-sided Towhee*, Blue Grosbeak*, Gray Catbird*, Great Horned Owl*, Northern Bobwhite*, Red-tailed Hawk, Cattle Egret.

ANNOTATED LIST

The following list consists of species seen during the foray and additional species that have nested or that may be expected to nest at Reelfoot

Lake. The numbers following each species indicate the total individuals recorded on 12 May and 21-24 June, respectively.

1. Pied-billed Grebe 6/0; Whittemore (1937) found it to be a fairly common summer resident; no nesting season reports or evidence of nesting in recent years, although it may do so in small numbers.

2. Double-crested Cormorant 1/0; as many as 200 pairs formerly nested at Reelfoot (Ganier 1933); only one pair was present in 1963 (Gersbacher 1964); no evidence of nesting in recent years although the number of transients on Reelfoot is increasing.

3. Anhinga 0/0; Ganier (1933) estimated at least 50 pairs were present in 1932; the only confirmed nest in recent years was in 1977 (Pitts 1982b); Waldron (1984) reported on individual during the 1984 nesting season.

4. American Bittern 2/0; an unconfirmed report (Reelfoot NWR records) of calling and possible nesting near the Tennessee-Kentucky border in the summer of 1984.

5. Least Bittern* 8/17; the breeding population is much larger than indicated by the foray results (pers. obs.); Mengel (1965) describes the breeding population at Reelfoot as the largest in the south; F.J. Alsop, III, found about 20 nests near boat trails while searching for nests of Red-winged Blackbirds in 1970 (pers. comm.).

6. Great Blue Heron* 217/100 (estimated); the colony on Little Ronaldson Slough (Pitts 1982b) is increasing in size; an aerial photo survey in March 1984 showed 250 active nests (Pullin 1984). The nesting population is apparently larger now than in the 1930's (Ganier 1933, Whittemore 1937) but much smaller than it was in the late 1950's and early 1960's (Gersbacher 1964).

7. Great Egret* 57/4; Whittemore (1937) described this as the most common and most conspicuous bird on the lake with at least 2,500 present during the nesting season. Gersbacher (1964) implies that the population was high in 1963, but she does not give a population estimate. About 15 pairs nested in the Little Ronaldson Slough Colony in 1984 (Pullin 1984).

8. Snowy Egret 1/0; not known to have nested at Reelfoot, although 1 was seen at the Little Ronaldson Slough Colony in 1981 (Pitts 1982b); formerly nested in a colony 13 km south of Reelfoot Lake (Ganier 1951).

9. Little Blue Heron 9/0; small numbers have nested on Reelfoot (Ganier 1951); usually present in small numbers during breeding season (pers. obs.) but no evidence of recent nesting; previously nested in a large colony south of Reelfoot Lake (Ganier 1951).

10. Cattle Egret 22/1; previously nested 32 km to the south of Reelfoot Lake at Dyersburg (Coffey 1964) but is not known to have nested at Reelfoot.

11. Green-backed Heron* 5/4; both Ganier (1933) and Whittemore (1937) considered this species to be a common summer resident on the lake, although they both noted its preference for timbered shorelines. Whittemore (1937) reported seeing as many as 30 a day. It is still common in the watershed and surrounding area. The low numbers of this conspicuous species seen on the foray were, to me, unexpected and are unexplained.

12. Black-crowned Night-Heron 0/0; Vaughn (1933) and Woodring

(1934) reported 12 nests; Gersbacher (1964) reported only 1 nest and noted the decline. There are no recent nest records.

13. Yellow-crowned Night-Heron* 6/0; the summer population (presumed to nest) is much larger than indicated by the foray; 10-20 are regularly seen north of Champey's Pocket (pers. obs.).

14. Black-bellied Whistling Duck 0/0; this species has apparently occurred and nested once at Reelfoot Lake (Pitts 1982a).

15. Canada Goose 2/0; the Giant Canada Goose (*Branta canadensis maxima*) formerly nested at Reelfoot (Hanson 1965), but by the time of Pindar (1886) the nesting population had apparently declined and eventually was extirpated.

16. Wood Duck* 151/110; although many use nest boxes, natural cavities are still commonly used for nesting at Reelfoot.

17. Mallard* 51/8; most of the nesting season records are of semidomesticated individuals that are primarily found at the periphery of the lake, especially near boat docks and houses.

18. Blue-winged Teal 37/0; has nested in southern Illinois (Gore and Foss 1974) but there is no evidence of nesting at Reelfoot Lake.

19. Lesser Scaup 4.0; late migrant.

20. Hooded Merganser* 0/0; although not recorded on the foray, this species nests regularly, but in small numbers (Reelfoot NWR records); the nesting population is apparently much smaller than that of Hatchie NWR (Waldron 1982a).

21. Black Vulture* 9/2; a mid-summer visit to the Little Ronaldson Slough heron colony might have resulted in a significantly larger number, as this species is found in heron colonies (Spofford 1942).

22. Turkey Vulture* 31/27.

23. Osprey* 7/2; Ganier (1933) reported that 1 or 2 pairs were normally present during the summer; apparently nesting has occurred each year since then, although nest success has not been documented; in recent years 2-4 pairs have nested.

24. Mississippi Kite* 11/11; Pindar (1925) described it as a rare summer resident; Whittemore (1937) did not report it.

25. Bald Eagle 0/0; Ganier (1931) reported 3-4 nesting pairs; continued nesting, but in diminishing numbers, until the early 1960's; nest building has been observed in late winter and early spring in several recent years; an active restoration project coordinated by the Tennessee Wildlife Resources Agency and effectively carried out by the Memphis Chapter of TOS may speed the recovery of the nesting population. Thirteen young eagles have been released (1981-1984) at a site near Little Ronaldson Slough.

26. Sharp-shinned Hawk 0/0; while it has not been recorded during the nesting season in recent years or by Whittemore (1937), it may have been a common nesting species earlier (Pindar 1925).

27. Cooper's Hawk 0/0; a record of 1 on 18 June 1982 (Waldron 1982b) indicates it may nest, although not in the numbers of 1880-1890 when it was considered a common resident (Pindar 1925).

28. Red-shouldered Hawk* 17/10; based on the amount of courtship display (which takes place early in the year), I believe the nesting population is considerably larger than indicated by the foray results.

29. Broad-winged Hawk 0/0; it nests regularly, but in small numbers, in the Reelfoot Lake watershed; I can find no positive evidence of nesting in the foray area.

30. Red-tailed Hawk 1/0; commonly nests in the wooded farmland of the lake watershed, but rarely nests in the foray area.

31. American Kestrel 1/0; rarely nests in the foray area, but does so, in small numbers, in the watershed.

32. Peregrine Falcon 0/0; formerly nested in tall bald cypress trees (Spofford 1943) but, as elsewhere in eastern United States, was a victim of pesticides; last Reelfoot nest fledged young in 1947 (Hickey 1968).

33. Wild Turkey* 18/13; flocks are present in the Walnut Log area and on the Reelfoot Wildlife Management Area near Champey's Pocket.

34. Northern Bobwhite* 4/1; the low foray numbers reflect the lack of suitable habitat for this species on the foray area.

35. King Rail 1/0; Whittmore (1937) listed it as a fairly common summer resident; I suspect it to be more numerous than the foray results indicate; few, if any, foray participants deliberately searched for this species.

36. Virginia Rail 1/0; no evidence of nesting but habitat appears suitable and it has nested at several other sites in Tennessee (Alsop undated).

37. Sora 2/0; it is being overlooked as a nesting species?

38. Purple Gallinule* 0/7; most of the records, including a nest with eggs, were from the south end of Brewer's Bar; this is the same area where Ganier (1933) found a colony nesting in 1923 and subsequently. Details of the nest and observations will be reported separately.

39. Common Moorhen* 18/13; like the Purple Gallinule, most of the observations, including adults with young, were near the south end of Brewer's Bar.

40. American Coot* 99/3; Ganier (1933) described it as a common summer resident, at least on certain parts of the lake; apparently the breeding population has dropped sharply in recent decades.

41. Semipalmated Plover 7/0; migrant.

42. Killdeer* 15/5.

43. Greater Yellowlegs 14/0; migrant.

44. Lesser Yellowlegs 15/0; migrant.

45. Solitary Sandpiper 7/0; migrant.

46. Willet 1/0; migrant.

47. Spotted Sandpiper 5/0; may have previously nested but positive nest records are lacking (Pindar 1925); Ganier (1933) and Whittemore (1937) found it only as a migrant.

48. Semipalmated Sandpiper 11/0; migrant.

49. Least Sandpiper 13/0; migrant.

50. Baird's Sandpiper 35/0; migrant.

51. Pectoral Sandpiper 10/0; migrant.

52. Dowitcher sp. 2/0; migrant.

53. American Woodcock 0/0; probably is an uncommon nesting species in the foray area as it is elsewhere across Tennessee (Pitts 1978).

54. Ring-billed Gull 2/0; migrant.

55. Caspian Tern 9/0; migrant.

56. Forster's Tern 4/0; migrant.

57. Least Tern 0/0; while not recorded on the foray, it is frequently seen feeding in Reelfoot Lake, especially Lower Blue Basin, during and following the nesting season; the nearest known nest sites are the sandbars of the Mississippi River.

58. Rock Dove* 3/0.

59. Mourning Dove* 42/11.

60. Black-billed Cuckoo 2/0; has nested elsewhere in west Tennessee (Roever 1951) but does not nest regularly in the mid-south area. I am not aware of any Reelfoot Lake area nesting records.

61. Yellow-billed Cuckoo* 26/43; one of the latest nesting species to arrive, as indicated by the foray results.

62. Common Barn-Owl 0/0; this species formerly nested in Wood Duck nest boxes around the lake, but as elsewhere in Tennessee, the population has declined drastically. My last record was in 1974.

63. Eastern Screech-Owl* 0/2; also uncommon in much of the lake watershed.

64. Great Horned Owl* 0/1; Whittemore (1937) described it as a rare permanent resident, which is apparently still correct; elsewhere in river bottom woodlands (seemingly similar to Reelfoot Lake habitat) of northwest Tennessee, it is a common resident.

65. Barred Owl* 25/6.

66. Common Nighthawk* 5/0; the low numbers may be due to the lack of suitable nest sites.

67. Chuck-will's-widow 0/0.

68. Chimney Swift* 92/27; seen over all parts of the lake and suspected to use large hollow trees for nesting and roosting.

69. Ruby-throated Hummingbird * 38/14.

70. Belted Kingfisher* 6/2; the flood plain on which Reelfoot Lake is located provides few suitable nest sites; it is more numerous in the hills of the watershed.

71. Red-headed Woodpecker* 71/34.

72. Red-bellied Woodpecker* 96/43.

73. Downy Woodpecker* 42/10.

74. Hairy Woodpecker* 13/3.

75. Northern Flicker* 11/11.

76. Pileated Woodpecker* 50/8.

77. Eastern Wood Pewee* 81/49.

78. Acadian Flycatcher* 66/31.

79. Willow Flycatcher* 1/4; the status of this species in Tennessee has been recently reviewed (Pitts 1982c); while numerous breeding season records exist, no nests have been found at Reelfoot Lake or elsewhere in west Tennessee.

80. Least Flycatcher 3/0; migrant.

81. Eastern Phoebe* 7/4; records were scattered from north half of lake; apparently no records were near buildings.

82. Great Crested Flycatcher* 131/30.

83. Eastern Kingbird* 195/2; of the large wave of migrants seen on the first foray date, few remained to nest; Whittemore (1937) likewise rarely found it on the lake.

84. Horned Lark* 15/76; although the foray area was primarily restricted to Reelfoot Lake and the surrounding wooded areas, some cultivated fields were included, thus explaining the numbers of this species.

85. Purple Martin* 37/19; all apparently nest in artificial cavities on the periphery of the lake.

86. Tree Swallow* 44/7; the breeding population at Reelfoot is apparently continuing to increase; its breeding status in Tennessee has been recently reviewed (Nicholson and Pitts 1982); a nest with eggs was found by Don Manning on 12 May.

87. Northern Rough-winged Swallow* 13/16; while assumed to be nesting, I am not aware of nest records from the foray area.

88. Bank Swallow 0/0; although not seen on the lake during the foray, the species frequently nests in the sandy banks of the nearby Mississippi River.

89. Barn Swallow* 54/31.

90. Blue Jay* 40/3; probably present in larger numbers than the June count indicates.

91. American Crow* 96/47.

92. Fish Crow* 2/2; while occuring regularly, but in small numbers, in the Reelfoot area, I am not aware of positive nest records.

93. Carolina Chickadee* 134/35.

94. Tufted Titmouse* 20/11.

95. White-breasted Nuthatch* 20/11; the nesting population is apparently restricted to areas with mature timber stands.

96. Brown Creeper 0/0; foray participants were asked to search for this species; I am not aware of any nest records from Reelfoot Lake. It has nested in adjacent Dyer County (Criswell 1979) and in southern Illinois (George 1972).

97. Carolina Wren* 115/50.

98. House Wren 1/0; the nearby towns of Union City and Martin have

small, but regular, nesting populations; I am not aware of northwest Tennessee nest records outside of towns.

99. Sedge Wren 1/0;

100. Blue-gray Gnatcatcher* 191/55; abundant over the lake and in adjacent woodland.

101. Eastern Bluebird* 7/49; not found out in lake; records from farmland at periphery of lake.

102. Veery 2/0; migrant.

103. Gray-cheeked Thrush 40/0; migrant.

104. Swainson's Thrush 78/0; migrant.

105. Wood Thrush* 36/10.

106. American Robin* 12/11; records from lawns and urban areas.

107. Gray Catbird* 24/1.

108. Northern Mockingbird* 5/3; the foray results reflect the small number of human dwellings visited in the foray area.

109. Brown Thrasher* 4/0.

110. Cedar Waxwing 109/0; no evidence of nesting; Pindar (1925) recorded it throughout the summer but found no nests.

111. Loggerhead Shrike* 2/0; still commonly found in the lake watershed.

112. European Starling* 500+/11; generally restricted to the periphery of the lake.

113. White-eyed Vireo* 92/42.

114. Yellow-throated Vireo* 9/0; nests in the watershed and probably also in the foray area.

115. Warbling Vireo* 7/11.

116. Philadelphia Vireo 2/0.

117. Red-eyed Vireo* 58/20; Whittemore (1937) found this to be the most abundant of the vireos at Reelfoot; as elsewhere, its numbers have declined at Reelfoot; loss of habitat may be partially, but apparently not entirely, responsible for the decline.

118. Golden-winged Warbler 1/0; migrant.

119. Tennessee Warbler 83/0; migrant.

120. Nashville Warbler 4/0; migrant.

121. Northern Parula* 47/35; unlike many of the warblers, the population remains high as in 1936 (Whittemore 1937).

122. Yellow Warbler* 11/8; territorial activity was observed, as in recent years, but no nests have been found at Reelfoot Lake; Pindar (1925) described it as a common nesting species in the 1880's. Nicholson (1982) reviewed west Tennessee records; it has recently nested near Memphis.

123. Chestnut-sided Warbler 9/0; migrant.

124. Magnolia Warbler 20/0; migrant.

125. Cape May Warbler 1/0; migrant.

126. Yellow-rumped Warbler 92/0; winter resident and abundant migrant.

127. Black-throated Green Warbler 1/0; migrant.

128. Blackburnian Warbler 2/0; migrant.

129. Yellow-throated Warbler* 18/18; although known to forage and nest in sycamore trees in the Mississippi Valley, at Reelfoot, where there are few sycamores, it is found in cypress trees even out over the lake as also noted by Whittemore (1937).

130. Palm Warbler 12/0; migrant.

131. Bay-breasted Warbler 20/0; migrant.

132. Blackpoll Warbler 232/0; the number for 12 May is conservative.

133. Cerulean Warbler* 13/5; Whittemore (1937) found it to be fairly common in some areas and equal in abundance to the Northern Parula; like many of the nesting warblers its numbers have declined in recent decades. Unoccupied, but seemingly suitable, habitat at Reelfoot supports the idea of problems during migration or on the wintering grounds.

134. Black-and-white Warbler 2/0; no evidence of nesting either recently or in the past (Whittemore 1937) although both Pindar and Whittemore (1937) considered it a rare summer resident.

135. American Redstart* 40/2; this species was considered by Whittemore (1937) to be a very common summer resident; the beginning of the population decline at Reelfoot is not well documented.

136. Prothonotary Warbler* 190/112; as in the past, this is an abundant nesting warbler at Reelfoot.

137. Worm-eating Warbler 1/0; migrant.

138. Swainson's Warbler* 8/2; while more numerous than the June count indicates, it is restricted to a few localities.

139. Ovenbird 3/0; Whittemore (1937) did not list it as a summer resident, but Pindar (1925) recorded it as a common summer resident.

140. Northern Waterthrush 4/0; migrant.

141. Louisiana Waterthrush* 4/0; uncommon, but regular, nesting species in the watershed; possibly present in larger numbers than indicated by the foray results.

142. Kentucky Warbler* 27/12.

143. Mourning Warbler 1/0; migrant.

144. Common Yellowthroat* 195/87.

145. Hooded Warbler* 6/0; Whittemore (1937) found it to be a common summer resident, a situation not now true.

146. Wilson's Warbler 4/0; migrant.

147. Canada Warbler 10/0; migrant.

148. Yellow-breasted Chat* 11/12; Whittemore (1937) found it to be much more common and widely distributed than foray results indicate.

149. Summer Tanager* 41/12.

150. Scarlet Tanager 2/0; not recorded by Whittemore (1937) as a nesting species.

151. Northern Cardinal* 201/88.

152. Rose-breasted Grosbeak 34/0; migrant.

153. Blue Grosbeak* 1/1; not recorded by Whittemore (1937).

154. Indigo Bunting* 508/162.

155. Dickcissel* 82/25; Whittemore (1937) had only 2 summer records about the lake.

156. Rufous-sided Towhee* 5/1; although commonly found in the watershed, it is rarely found during the nesting season in the vicinity of the lake; Whittemore (1937) did not record it.

157. Chipping Sparrow* 0/3; restricted to lawns on the periphery of the lake.

158. Field Sparrow* 2/7.

159. Song Sparrow 0/0; has apparently nested recently in the Lake County (Waldron 1976), but the small and irregular number of nesting season records indicates it is not yet established as a nesting species.

160. Lincoln's Sparrow 2/0; migrant.

161. White-throated Sparrow 4/0; migrant.

162. Bobolink 32/0; migrant.

163. Red-winged Blackbird* 956+/322; the most abundant nesting species on Reelfoot Lake.

164. Eastern Meadowlark* 11/8.

165. Common Grackle* 217+/51; Whittemore (1937) noted that this species was outnumbered only by Red-winged Blackbirds.

166. Brown-headed Cowbird* 124/48; Pindar (1925) considered it to be rare until 1893.

167. Orchard Oriole* 11/8; Whittemore (1937) had only 9 summer records and considered it to be rare; Pindar (1925) described it as a rare summer resident.

168. Northern Oriole* 18/10; mostly associated with elms (many of which have now died) and cottonwoods, especially along the Mississippi River. Pindar (1925) recorded it as a common summer resident; Whittemore (1937) had no records of it.

169. House Finch 0/0; to my knowledge there are no records of this species, at any season, for the Reelfoot Lake area; this situation will likely change if the westward range expansion continues.

170. American Goldfinch* 13/9; also an uncommon nesting species in the watershed.

171. House Sparrow* 28+/85; limited to periphery of the lake where it occasionally uses natural cavities over water; not recorded by Pindar (1925) or Whittemore (1937).

DESIDERATA

The status of several nesting, or potentially nesting, species remains unclear. Information is especially needed on the following species: Pied-billed Grebe, Green-backed Heron, Yellow-crowned Night-Heron, Least Bittern, Red-shouldered Hawk, King Rail, Common Moorhen, Purple Gallinule, American Coot, Great Horned Owl, Eastern Kingbird, Willow Flycatcher, Fish Crow, and Yellow Warbler.

LIST OF PARTICIPANTS

Wendell Crews and his staff from the Reelfoot National Wildlife Refuge provided boats and guide service on 12 May; this assistance was a key. factor in coverage of some relatively inaccessible areas and is gratefully acknowledged.

In addition to the staff from Reelfoot NWR, the following participated in the foray: Diane Bean, Ivon Beaver, Carolyn Bullock, Ben B. Coffey, Jr., Lula C. Coffey, Helen Dinkelspiel, Harold Elphingstone, Jim Ferguson, Paul Hamel, Susan Keeton, Don Manning, Mark Mayfield, Charles P. Nicholson, George Payne, David Pitts, Damien Simbeck, Arlo Smith, Noreen Smith, Mike Todd, Wallace Todd, Martha Waldron, and Jeff Wilson.

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MINUTES OF THE 1985 ANNUAL BOARD OF DIRECTORS AND BUSINESS MEETING

The 70th Annual Meeting of the Board of Directors of the Tennessee Ornithological Society convened on 4 May 1985 at the Student Center of Columbia State Community College, Columbia, Tennessee. The meeting was called to order by President Tony Koella. Following the determination of a quorum, the minutes of the 1984 fall meeting were read and approved.

REPORTS OF OFFICERS

Lil Dubke, VICE PRESIDENT for East Tennessee, outlined the conservation projects of the various East Tennessee chapters. She then yielded the floor to Marcia Davis of Knoxville, who reported on her chapter's projects. Dubke then reported on projects of the Chattanooga chapter.

CURATOR James Tanner reported that $504 had been raised from the sale of the William Walker books, which were formerly at the Children's Museum in Nashville. The sale had been conducted as outlined at a previous board meeting, and proceeds would be turned over to the treasurer. Sales of back issues of *The Migrant* had been slow.

TREASURER George Payne reported income of $5,840.37 and expenses of $7,426.93 since the November, 1984 meeting. Current paid memberships were 640, with two chapters not yet having submitted rosters.

The EDITOR of *The Migrant*, Charles Nicholson, reported that three issues had been mailed so far this year, and that he hoped to have the June 1984 issue mailed by June 1985. He had a good supply of manuscripts on hand. There was no activity by the certification committee.

The EDITOR of *The Tennessee Warbler*, Sharon Bostick, submitted a report that was read in her absence. There were no other officers' of directors' reports.

REPORTS OF COMMITTEES

FINANCE - President Koella reported that an informal audit of the treasurer's books had been completed and no problems were found.

CONSERVATION - In the absence of Chairperson Angela Davis, Ken Dubke reported that $1900 was presented to the Tennessee Wildlife Resources Agency to aid in Peregrine Falcon restoration. Dubke then outlined some projects of various chapters.

NOMINATING - Martha Waldron, Chairperson, offered the following slate of officers to be voted on at the annual meeting: President - James Ferguson; Vice-President, East Tennessee, Lillian Dubke; Middle Tennessee, Tom Guschke; West Tennessee, Dollyann Daily; Directors-at-Large, East Tennessee, Dee Eiklor; Middle Tennessee, Ruth McMillan; West Tennessee, Don Manning; Secretary, Carolyn Bullock; *Migrant* Editor, Charles Nicholson; Curator, James Tanner; Treasurer, George Payne.

OLD BUSINESS

Charles Nicholson reported that the 1985 Foray would be held in Cumberland County on 24-27 May and would serve as a pilot for the Breeding Bird Atlas project. Ken Dubke moved that the TOS wholeheartedly initiate and support the bird atlasing project. Robbie Hassler seconded the motion, which passed.

James Tanner moved that the money from the sale of the Walker books be put in the endowment fund. Ken Dubke seconded the motion. The motion carried.

Lil Dubke offered the old decals to chapters to use as a promotion for new members.

ANNOUNCEMENTS

The 1985 Fall Meeting and Symposium will be hosted by the Chattanooga Chapter at Fall Creek Falls State Park on 1-3 November. Fred Alsop requested papers for presentation at the meeting.

The 1986 Annual Meeting will be a joint meeting with the Wilson Ornithological Society on 17-20 April, at the Holiday Inn in Gatlinburg.

The President expressed appreciation to Kenneth Anderson and members of the Columbia Chapter for putting together an excellent annual meeting. The meeting was then adjourned.

BUSINESS MEETING

The Annual Business Meeting was called to order by Kenneth Anderson, President of the Columbia Chapter, following a dinner in the Student Center of Columbia State Community College. The invocation was given by Ed Byassee. A drawing for door prizes was conducted by Ann Lochridge.

TOS President Tony Koella thanked the Columbia Chapter for hosting the meeting. The secretary then summarized the afternoon board meeting.

Nominating Committee Chairperson Martha Waldron recognized her committee for their efforts and offered the slate of officers proposed during the board meeting. John Ellis moved that nominations cease and that the slate be elected by acclamation. George Mayfield seconded the motion which carried. The retiring president turned the gavel over to James Ferguson, incoming president. A roll call was held to recognize those attending from the various chapters and the members-at-large.

Dan Gray introduced Charles Nicholson, who presented a talk on "Birds of Forested Habitats of the Central Basin of Tennessee." His talk included plans for the Breeding Bird Atlas Project.

The meeting was adjourned with the announcement that the Foray would be in Cumberland County on 24-27 May.

BARBARA W. FINNEY, Secretary.

IN MEMORIAM: HENRY ELMER PARMER

Katherine A. Goodpasture

Henry Elmer Parmer, a devoted member of the Tennessee Ornithological Society, died at his home in Nashville, Tennessee on 11 May 1985. Two daughters, three granddaughters, and a stepson survive.

Henry Parmer was a member of the Tennessee Ornithological Society for 30 of his 71 years of life. Mr. B. H. Abernathy introduced Henry to the Bird Club about 1955. Decades earlier "Mr. Ab" and Henry had been teacher and student at Duncan School. Henry was enrolled in the School of Engineering at Vanderbilt University in the mid-1930's; later he became an active partner with his father and brothers in the H. E. Parmer Roofing Company. As manager of the furnace division of the Parmer Company, H.E., as his family called him, learned what he could do with metals and machines. He used this experience when he voluntarily designed and made net-poles and gadgets useful to bird-banders. He told me once that he could make a pole stand securely on a flat rock given 3 guy lines and though probably apocryphal, I can well believe he could throw a pontoon bridge for military crossing faster than any other man in the United States Army. He was on active duty in the Army during World War II.

It appears Henry became a member of TOS in 1955—full fledged and ready to go. He was soon elected president of the Nashville Chapter and was twice reelected. Henry was treasurer of the state society during the early 1960's. He was a prodigious field worker but was not a tramper. Most often he had with him one or two young boys who needed transportation for a day of roadside fieldwork. He was devoted to Two Jays Sanctuary and spent many hours there studying wild plants and birds. Color photography was one of his special interests, and he took great pleasure in sharing his slides of natural things.

From the Nashvile Records Committee Henry learned what "earliest", "latest" and "peak" meant. Through active participation with that group, Henry amassed an astonishing volume of records of the movements of birds of the Nashville area. That thick volume of notes was left to the State Archives of the TOS. His special interest in the birds of the Bush Lake area, which he could visit daily, resulted in publication of several papers in *The Migrant*. These papers were based upon more than 1400 trips to Bush Lake to record water and shore birds, river bank and a few bottomland species.

Henry saw the timeliness and importance of the collecting into one place records of the birds of the Nashville area that were "resting", so to speak, in private notebooks. Without much help at first he plunged ahead becoming the moving force in accumulating dates and information. These data came from personal files, from *The Migrant* as well as other published sources and the Records Committee file. Henry became compiler for a booklet titled "Birds of the Nashville Area", presently in its third edition. Students of the birds of the Nashville area refer constantly to "Henry's Book" which will stand as a fitting memorial to him. A Memorial Fund to honor the memory of Henry Parmer has also been established by the Nashville Chapter of the TOS.

We all miss Henry very much.

ROUND TABLE NOTES

SNOW BUNTING IN DAVIDSON COUNTY, TENNESSEE—In the early afternoon of 14 November 1984, Linda Bowman, Marty Rush, and I were birding the undeveloped Bakers Grove section of Long Hunter State Park along the rocky shore of Percy Priest Lake, Davidson County, Tennessee, when Bowman pointed out a small bird about 2.5 m in front of her. I identified it as a Snow Bunting (*Plectrophenax nivalis*), in winter plumage, similar to the one that my husband and I had found almost 4 years ago in Rutherford County at Fate Sanders Boat Dock on Percy Priest Lake (*Migrant* 52:47, 1981), except that it appeared to be more reddish brown than the Fate Sanders bird. We watched the bunting pecking around the rocks and among the tall lespedeza plants for about 15 minutes.

I notified Park Superintendent Reggie Reeves, Anne Hettish of Murfreesboro, and the rare bird alert in Nashville of our find. On the next morning, 15 November, Hettish and I watched the bunting at the same location for about 10 minutes in the rain. Reeves and others saw the bird later that morning. It was apparently last seen by Jim Snapper of Nashville between 1500 and 1600 on 15 November.

During its brief presence, the Snow Bunting was always found in about the same location. The only time I know of that it was seen to fly was when Hettish and I observed it fly up just above the lespedeza for about 1 m before it dropped down to the ground again. The Snow Bunting was usually seen eating weed seeds and allowed viewers to get with 2 m of it. The bunting was not found on 16 November or on later dates. By 24 November, heavy rains had raised the lake level, and the rocky beach was submerged.

Previous records of Snow Buntings in the area are the Fate Sanders bird, mentioned above, present from 6 December 1980 through 19 February 1981, 1 bird at Bush Lake, 19-20 November 1954, and 2 birds at Old Hickory Lake, 29 November 1969 through 18 February 1970 (Birds of the Nashville Area, 3rd Ed.).

RUTH V. MCMILLAN, Rt. 2, Box 141, Lascassas, TN 37805. Accepted 5 March 1985.

SANDHILL CRANES IN LAUDERDALE AND LAKE COUNTIES, TENNESSEE—Around 0730 on 18 April 1985, I was traveling east on Hwy. 87 from Fort Pillow State Historic Area in Lauderdale County, Tennessee, when 2 large birds in a field south of the highway caught my attention. I immediately pulled over and identified them as 2 adult Sandhill Cranes (*Grus canadensis*). They were 7.5 km E of the park entrance on state farm property. With good lighting, my 20x scope, and the birds at a distance on 60-70 m from me, the red crowns were easily seen. They were apparently quite contented or very tired, and fed, rested, and casually preened. The birds were still in the field when I left the area at approximately 0815.

On either 9 or 13 April, Bettie Sumara (pers. comm.) observed a single Sandhill Crane in Lake County, Tennessee. The bird was briefly observed as it flew towards the Lower Blue Basin area of Reelfoot Lake from the west. Although Sumara was uncertain of the date, she was positive of the identity of the crane.

Sightings of the Sandhill Crane in West Tennessee are irregular. Devore (*Migrant* 51:43-53, 1980) lists 2 sightings: a historic record of "large flocks" on the Shelby-Tipton County line in November of 1820 reported by Audubon, and a more recent record by Barbig of 2 birds in Shelby County during February, 1953 (*Migrant* 24:11, 1953). Waldron (*Migrant* 52:72, 1981) lists a sighting of one individual in Obion County during January and February of 1981. This bird was in eastern Obion County, and the Lake County observation reported above represents the first Reelfoot Lake area report (D. Pitts, pers. comm.). The Lauderdale County report is the latest seasonal occurrence in West Tennessee and the first report from Lauderdale County.

ROBERT P. FORD, 3931 Graceland, Memphis, TN 38116. Accepted 28 October 1985.

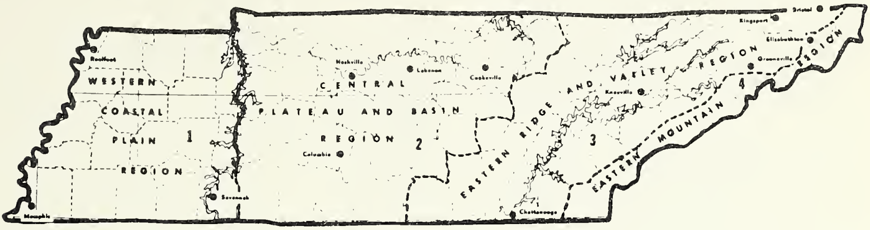
ANHINGA ON NEST AT REELFOOT LAKE, TENNESSEE—On 20 May 1985, I accompanied Jimmy Cox of Reelfoot State Park into the heron colony at Little Ronaldson Slough, Reelfoot Lake, Lake County, Tennessee. Although the vast majority of birds were Great Blue Herons (*Ardea herodias*), we spotted three Anhingas (*Anhinga anhinga*) soon after entering the colony. We were following the birds, searching for a nest, when the trio split up. Cox followed one bird while I watched the other two. During this time I observed the pair attempt to copulate. After approximately 45 seconds the female flew off with the male close behind. While waiting for a possible return to this perch, I heard Cox whistle softly for me. As I edged closer to him, he pointed out an Anhinga sitting on a nest with another individual (probably the mate) close by. Cox had taken several photographs before I arrived. The third individual was not seen again.

The nest itself was in the upper canopy of a Baldcypress (*Taxodium distichum*) approximately 28-35 m tall. It was one of the highest nests of 14 in the tree. Eight were occupied by Great Blue Herons, 1 was occupied by a Great Egret (*Casmerodius albus*) and 5 were apparently inactive. Due to the inaccessability of the Anhinga nest, no eggs or young were observed.

Reports of the Anhinga in Tennessee have been scarce for the past 20 years. Cox and Steve Pardue (also of Reelfoot State Park) photographed 1 on the nest in the Little Ronaldson Slough colony in 1977, although it was not reported until 1982 by David Pitts (*Migrant* 53:63-64, 1982). Since 1977, Anhingas have been seen around the colony but no nests found. Waldron (*Migrant* 51:86, 1980) describes a nesting at Big Hill Pond in McNairy County, Tennessee in 1980.

ROBERT P. FORD, 3931 Graceland, Memphis, TN 38116. Accepted 28 October 1985.

THE SEASON



WINTER: 1 NOVEMBER 1984 - 28 FEBRUARY 1985

This winter began with one of the mildest Decembers on record, and many species stayed well beyond their normal departure dates. These lingerers included Green-backed Herons, Ospreys, shorebirds, terns, House Wrens, and a few warblers. The balmy conditions ended abruptly with the arrival in mid-January of heavy snowfall and all-time record cold temperatures, including a low of -24°F at Knoxville. Colder than average temperatures persisted through most of the rest of the winter. The cold froze many bodies of water, concentrating waterbirds, and also pushing large numbers of waterfowl into parts of the state. The second state record of one species of waterfowl, the Harlequin Duck, was recorded when a male was shot by a hunter in early January, prior to the record cold, on Cheatham Lake.

Several northern species invaded the state following the record cold. These included good numbers of Rough-legged Hawks and American Tree Sparrows in middle Tennessee. Curiously, there were few reports of these species from the rest of the state. Other invaders included a Common Redpoll near Dover and 2 White-winged Crossbills at Chattanooga. Some landbirds were present in reduced numbers following the record cold. These included Golden-crowned and Ruby-crowned Kinglets and Winter Wrens. Determining whether populations of Carolina Wrens, Eastern Bluebirds, and other cold-sensitive breeding species were affected can best be done after censuses are conducted this summer.

Despite the presence of the redpoll and crossbills, this was not a good winter for northern finches. Purple Finches were present in very low numbers throughout the state, there were only a handful of reports of Pine Siskins, and only one report of Evening Grosbeaks from early in the period. As a result of the poor mast crop, Blue Jays were present in the lowest numbers in recent memory in west Tennessee and parts of east Tennessee.

Table 1 gives the results of the 1985 mid-winter eagle survey, held 4-12 January, before the severe cold. The Bald Eagle total of 265 birds is over 50% higher than last year's count, which was conducted when many water bodies were frozen. It is, however, lower than the 1981 and 1983 counts of 301 and 304 Bald Eagles, respectively.—CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION—The winter season was marked with several days of intense cold and 2 to 14 inches of snow cover, while other days were seasonably normal. Despite some of the bad weather, the number of field observations was consistent with previous years. The number of winter visitors was lower than expected for this season. Feeding stations did not record the large number of finches as in previous years, and Pine Siskins were only seen in groups of 2 to 10. The Vermilion Flycatcher was a first for Shelby County, but the sixth for West Tennessee.

Table 1. 1985 Mid-winter eagle survey.

	Bald Eagle			Golden Eagle
	Adult	Imm.	Total	Adult
West Tennessee				
Reelfoot Lake	83	55	138	-
Lake Isom NWR	2	1	3	-
Mississippi River	4	-	4	-
Open Lake & Cold Creek	3	-	3	-
Tennessee NWR	8	14	22	2
Totals	100	70	170	2
Middle Tennessee				
Land-Between-the-Lakes	12	10	22	-
Cross Creeks NWR	4	-	4	-
Cheatham Reservoir	1	-	1	-
Center Hill Resv.	4	-	4	-
DeKalb County	1	-	1	-
Cannon County	1	-	1	1
Dale Hollow Resv.	33	3	36	-
Tims Ford Resv.	1	-	1	-
Totals	57	13	70	1
East Tennessee				
Norris Reservoir	5	-	5	-
Douglas Reservoir	2	-	2	-
Cherokee Resv.	2	1	3	-
Watts Bar Resv.	4	2	6	-
Chickamauga Resv.	4	1	5	-
Nickajack Resv.	1	-	1	-
Raccoon Mtn. Resv.	1	2	3	1
Totals	19	6	25	1
GRAND TOTALS	176	89	265	4

Grebe—Falcon: Horned Grebe: 7 Jan (23), 6 Feb (2), 17 Feb (11) PLS (DWB). **TUNDRA SWAN:** 26 Jan - 19 Feb (1) Shelby Forest State Park (CHN, JRW, MGW); Pickwick Landing State Park, Hardin Co. (1) approximately the same dates as SFP sighting (CHN). Common Goldeneye: 7 Jan (13) PLS (DWB); 13 Jan (16) Ensley Bottoms, Shelby Co. (JRW); 6 Feb (70), 17 Feb (60) PLS (DWB). Common Merganser: 14 Feb (2), 6 Feb (70) PLS (DWB). Bald Eagle: 24 Nov (1 imm), 13 Jan (1 imm) Lakeview Levee, MS/TN line (BBC, LCC); 25 Jan (2 imm) PLS (DWB). Sharp-shinned Hawk: 20 Feb (1) HWR (CHB, SCF, NMS). Harlan's Hawk: 11 Feb (1) MEM (John L. Stokes). Rough-legged Hawk: 9 Dec (1) PEF (MGW); 2-10 Feb (1) REL (Paul D. Kittle, Shoals Audubon Society). American Kestrel: more common than usual (*fide* MGW). Merlin: 9 Dec (1) PEF (CHB, JRW).

Yellowlegs—Flycatcher: Greater Yellowlegs: 15-16 Dec (4) ESL (RLM, LCC, JRW). Lesser Yellowlegs: 9 Dec (1) ESL (BBC). Sanderling: 2 Dec (1) (JRW, BBC, LCC), 8 Dec (1) (JRW), 9 Dec (2) ESL (BBC, LCC). Ring-billed Gull: 1 Jan (350), 14 Jan (500+), 25 Jan (3000+) PLS (DWB). Forster's Tern: 2 Dec (9) ESL (BBC, LCC); 9 Dec (2) MS River at MEM (JRW); 16 Dec (3) ESL, MEM CBC (RLM, LCC). Short-eared Owl: 17 Feb (2) BRF (DWB). **VERMILLION FLYCATCHER**: 1 Dec (1) ESL (Chris Creech).

Jay—Siskin: Blue Jay: Dec-Jan numbers very low in Tri-state area (BBC); MEM CBC numbers lowest in 40 years. House Wren: 16 Dec (7 total by 3 parties) MEM CBC. Ruby-crowned Kinglet: Dec-Jan numbers low in Tri-state area (BBC). Blue-gray Gnatcatcher: 16 Dec (1) ESL, (1) President's Island, both MEM CBC (Bobby Whittemore, LCC, W. Robert Peeples). Gray Catbird: 16 Dec (1) ESL, MEM CBC (Tina Carpenter). Dickcissel: 6-8 Feb (1) MEM (JRW). Amer. Tree Sparrow: 10 Feb (1) REL (DJS, Shoals Audubon Society); 17 Feb (4) BRF (DWB). Dark-eyed Junco: Dec-Jan numbers low in Tri-state area (BBC). Lapland Longspur: 17 Feb (40+) BRF (DWB). Rusty Blackbird: 29 Dec (300) PEF (Dollyann Daily, MGW); 17 Feb (260) PEF (JRW); 20 Feb (5) HWR (CHB, SCF, NMS). Purple

Finch: numbers through period low both at feeders and in the field. House Finch: 21 Feb (1) MEM (Joe L. Levy). Pine Siskin: sporadic in low numbers during period at MEM (BBC).

Locations: BRF - Britton Ford, Henry Co.; ESL - Ensley Sewage Lagoons, Shelby Co.; HWR - Hatchie Nat. Wildl. Refuge, Haywood Co.; MEM - Memphis, Shelby Co.; PEF - Shelby Co. Penal Farm; PLS - Paris Landing State Park, Henry Co.; REL - Reelfoot Lake.

MARTHA G. WALDRON, 1626 Yorkshire Drive, Memphis, TN 38119.

CENTRAL PLATEAU AND BASIN REGION—It was a winter of extremes, as the fourth-warmest December on record in Nashville was followed by a January in which the coldest temperatures ever experienced in the region were recorded. Although December began with a brief cold period during which a record-tying low temperature of 10°F occurred on December 7 in Nashville, it turned warmer quickly, as the occurrence of three record-setting high temperatures in mid-month indicates. Overall, December averaged almost 50°F in Nashville, nearly nine degrees above the 30-year average. January, of course, brought extreme low temperatures, including Nashville's alltime record low: -17°F on January 21. Precipitation in January was also below normal, but much of it fell as snow, with several accumulations of an inch or more blanketing the region for periods of a few days to more than a week. For the second consecutive winter most small and medium-sized bodies of water froze over in late January and early February.

Meteorological conditions in the region to a large extent dictated avian conditions. December's balmy temperatures incited many summer species to linger, while the cold weather of January and early February triggered an invasion of varying numbers of northern species, as well as changes in the concentrations and abundance of water-related species. Although many laggard summer and migrant species were recorded in the region, perhaps the chief beneficiaries of the warm December were the regional Christmas Bird Counts, which reported many lingering species, including Ospreys at Ashland City, Green-backed Herons on the Clarksville, Highland Rim, and Hickory-Priest CBCs, House Wrens in Columbia and on the Hickory-Priest CBC, and the Nashville Area's first-ever winter Broad-winged Hawk. Generally, however, the counts resulted in about average numbers of both individuals and species, probably because the unusual number of lingerers was offset by reduced numbers of species associated with cold weather, which set in after the CBC season. The arrival of severe cold affected semi-hardy species inconsistently. Some appear to have been relatively little reduced by the cold weather (e.g., bluebirds and thrashers), while others suffered noticeably from reduced temperatures (e.g., wrens, kinglets, and orioles).

Equally inconsistent were the numbers of boreal invaders. American Tree Sparrows staged a remarkable region-wide invasion, certainly one of the finest on record. Beginning in early January and peaking in early to mid-February, the incursion of this species was one of the most memorable of the season. Rough-legged Hawks were nearly as conspicuous and as widely distributed, especially in February. Also indicative of a northern invasion were two other species: the region's first Harlequin Duck occurred in early January on Cheatham Lake, when a brilliant male was taken by a hunter, and a Common Redpoll appeared later in January, adding to the handful of regional records of this species. Winter finches on the whole, however, did not invade in numbers. Purple Finches and Pine Siskins arrived late and remained in low numbers at most locations; Evening Grosbeaks were almost nonexistent; only American Goldfinches were reported in above average numbers.

The frozen conditions prevalent in January and February changed waterfowl numbers and locales. Some species which remain in the region in limited numbers (e.g., Ruddy Duck) simply moved south with the arrival of the cold. Nearly all the others were forced to concentrate in limited areas, as in late January at the Duck River Unit of the Tennessee NWR where thousands of ducks and geese crowded into the only open water available—the confluence of the Duck and Tennessee Rivers.

A few other comments are in order. Another Mute Swan occurred this winter, adding further to the discussion about whether or not to include this species on the official state bird list. This bird, seen 7-28 December near Gallatin by the Crawfords, appeared wild and stayed a relatively short time before moving on, no doubt to cause similar perplexing problems in other climes. Another perplexing issue involves the records submitted this season without sufficient details to justify inclusion in the following account. Although these are very few in number, even those few could have been avoided had the observers involved added a few details of their identification to their report. Of those records submitted with details only one does not appear below for reasons other than lack of significance or space. This report, of a Western Meadowlark at Cross Creeks NWR, was tantalizingly close to acceptance. Had the description of the song of this bird been a bit less anomalous, the record would have been accepted. Even so, the observer is urged to submit this sighting as a Round Table Note.

Loon—Night-Heron: Common Loon: 29 Dec (27) Hickory-Priest CBC (*fide* MPS); 29 Dec (13) Highland Rim CBC (*fide* Philip Medley); only reports, as most birds departed with the advent of cold weather in early January. Pied-billed Grebe: 22 Dec (43) Columbia CBC (*fide* ARL), highest total of season; this species also decreased dramatically with the arrival of cold weather. Horned Grebe: 27 Jan (20) OHL (CGD), only report after December. Double-crested Cormorant: 22 Jan (1) Jefferson Springs Boat Ramp, PPL (RVM, Mac R. McMillan), only report after December. AMERICAN WHITE PELICAN: 16 & 29 Dec (1 ad.) WDR and Highland Rim CBC (RL, MH, CB), continues a record from fall. Great Blue Heron: 29 Dec (34) Clarksville CBC (*fide* EJW), all-time high for this CBC. Green-backed Heron: 29 Dec (1/1/1) Clarksville CBC/Highland Rim CBC/Hickory-Priest CBC (*fide* Joe D. Allen/CB, RL, MH/SJS, DFV); notable coincidence of CBC sightings with the last of the warm December weather. Black-crowned Night-Heron: 27 Jan (28) OHL dam (CGD), usual wintering numbers present despite record cold and frozen conditions.

Swan—Duck: Tundra Swan: 1 Dec-19 Jan (1 im.) Monsanto Ponds, MUC (ARL, m. ob.), continues a fall record; 20 Dec-16 Jan (1 im.) Fosterville, RUC (*fide* ALH); 24 Dec-3 Jan (1 ad.) MUR (ALH, m. ob.); 14 Feb (1) DRU (Carl Dowdy). GREATER WHITE-FRONTED GOOSE: 5 Jan (3) WDR (Harry C. Yeatman, Jean A. Yeatman); 9 Jan (1 shot) PPL (DWN); 20 Feb (3) CCNWR (TJW, PCH), see fall 1984 report for related CCNWR records antedating this one. Snow Goose: small numbers reported from CHC (up to 7), LWC (1), and WLC (4), and larger concentrations noted at the NWRs with up to 170 at DRU and up to 30 at CCNWR. Canada Goose: peak numbers of 50,000+ and 30,000 at DRU and CCNWR, respectively. American Black Duck: peak numbers of 19,000 and 11,000 at DRU and CCNWR, respectively. Mallard: peak numbers of 65,000 and 50,000 at DRU and CCNWR, respectively. Blue-winged Teal: 22 Dec (2) Columbia CBC (*fide* ARL); 28 Dec (2) DRU (SJS, PBH); 18 Jan (3) CCNWR (*fide* FFR): late lingerers in December probably a result of warm weather; January birds possibly wintering. EURASION WIGEON: 23 Dec (1 male) DRU (BHS), about 7th state record; follows fall sightings at CCNWR. Canvasback: 1 Dec-EOP (up to 41, except when Res. froze) FRR (SJS); 28 Dec (180, of which only 35 were females) DRU (SJS, PBH); 14 Jan (19) RDL (SJS), considered high for that locale. Redhead: 11 Jan (1), 16 Feb (20), 20 Feb (30), and 24 Feb (80+) CCNWR (DWB, AHH, TJW, PCH); 16 Feb (49) PPL (CGD); 24 (4) and 26 Feb (1) FRR (SJS); February records probably indicate beginnings of spring migration, as few wintering birds were reported. Ring-necked Duck: 14 Jan (280) RDL (SJS); 22 Jan (14) LHL (GNP); 24 Feb (500) CCNWR (DWB). Lesser Scaup: by EOP (up to 300) RDL (ATT, m. ob.). **HARLEQUIN DUCK:** 5 Jan (1 shot) Cheatham L. (DWN, *fide* DFV, CGD), first NA record and 2nd state record. Oldsquaw: 25 Dec (1 male) RDL (ATT, C. Rowan Debold, m. ob.). Surf Scoter: 22 Dec (1 im.) Arrow L., MUC (ARL, O. Bedford Lochridge). Common Goldeneye: 8 Dec (13) BAL (DWB), highest total of season. Bufflehead: 16 Jan (34) RDL (ATT), a low total for this locale, but highest report of season. Hooded Merganser: 11 Dec (128) CCNWR (DWB), highest total of season. Common Merganser: 10-14 Dec (4) FFR (SJS); 22 Dec (4) Wilson County CBC (RVM, Donald C. Jenkins, Marty Rush, Linda Bowman); 29 Dec (2) Hickory-Priest CBC (*fide* MPS): 15 Jan (4) Long Hunter State Park, DVC (MLM); 22 Jan (1) LHL (GNP); 27 Jan (4) OHL (CGD); 9 Feb (3) PAP (SJS, ATT, LDR, Pamilla Hopkins); 19 Feb (1) Quarry Pond, RUC (TJW); a respectable number of sightings for one season in the region. Ruddy Duck: 1 Dec (1) CCNWR (CGD, m. ob.); 1 Dec-18 Jan (up to 20) FRR (SJS), freeze caused departure.

Osprey—Falcon: Osprey: 14 Dec (2) Ashland City CBC (Rocky J. Milburn, Jr.); 22 Dec (1) Nashville CBC (Miriam K. Weinstein); 16 Jan (1) MUR (Wilma J. Hunter, *fide* ALH). Bald Eagle: besides the regular wintering birds at DRU, CCNWR, WDR, and Center Hill Dam (see Table 1), reports also came from PAP, COL, DOV, and RUC. Northern Harrier: only 7 reports (4 at the NWRs and 3 away from them). Sharp-shinned Hawk: reported on 8 regional CBCs and in encouraging numbers at many widely separated locales, usually with a feeder nearby. Cooper's Hawk: reported on 6 CBCs and in good numbers elsewhere. Northern Goshawk: 27 Dec (1 im.) CCNWR (DWB), probably same bird as reported at this site during fall. **BROAD-WINGED HAWK:** 22 Dec (1 ad.) Nashville CBC (DFV, John Price), first NA winter record, again probably due to the warm December weather. Red-tailed Hawk: 1 Dec (1 dark phase) CCNWR (Mary Anne Guschke, m. ob.). Rough-legged Hawk: 11 reports 8 Dec-EOP from DVC, HPC, RUC, MUC, SWC, and WLC. Golden Eagle: 9 reports 27 Dec-27 Feb from HPC, SUC, SWC, WMC, and Cannon Co. Peregrine Falcon: 29 Dec (1 im.) Crossroads, LWC (GNP, DJS), only report with adequate details included.

Pheasant—Gull: Ring-necked Pheasant: 2 Dec (1 female) near LOR (DJS); 29 Dec (1 female) Bennet L., LWC (Dawn G. Simbeck). Ruffed Grouse: 8 & 12 Dec (3) BAH (RWS), area within a few miles of western edge of Cumberland Plateau. Sandhill Crane: 3 Dec (81), 6 Dec (60), and 7 Dec (30) Byrdstown, Pickett Co. (Robbie C. Hassler, J. David Hassler); 22 Dec (2) Nashville CBC (William Cowart); 4, 9, & 16 Jan (4) WDR (CWC, *fide* KHD), probably wintering birds; 21 Feb (27) and 28 Feb (24) BAH (RWS); 26 Feb (60) and 28 Feb (40) Dry Valley, Overton Co. (Francis C. Baker). American Coot: has all but deserted many former regional wintering areas, such as RDL, WDR, and DRU; maximum number reported was 30 on 7 Jan at CCNWR (DWB). Least Sandpiper: 28 Dec (13) DRU (SJS, PBH), departed with early January cold; 21 Feb (1) Edwin Warner Park, DVC (DFV), early returnee. Dunlin: 28 Dec (6) DRU (SJS, PBH), also departed with the January cold. Bonaparte's Gull: 4 Jan (10) RDL (ATT); 12 Feb (25) WDR (CGD); only reports. GREAT BLACK-BACKED GULL: 27 Jan (1 im.) Anchor Dr., OHL (CGD), 3rd NA record.

Barn-Owl—Pipit: Common Barn-Owl: 22 Dec (2) Lebanon, WLC (V. Ray Pope, Fred O. Detlefsen); 25 Jan (1) White House, SUC (Carl T. Hargis, *fide* Robert English). Common Nighthawk: 11 Dec (1) LEF (BHS); 12 Dec (1) Donelson, DVC (MLM); more warm-December lingerers. Red-headed Woodpecker: few reports, unlike the high number of reports from the preceding winter. Horned Lark: widely reported in moderate numbers; highest report was of 75 on 11 Jan at FRR (SJS). Red-breasted Nuthatch: only 7 reports for season (5 on CBCs during early warm weather); for third consecutive winter, this species was noticeably low in numbers. Carolina Wren: may have been negatively affected by the severe cold of January and February; Breeding Bird Surveys should clarify their status. Bewick's Wren: reports came in from DVC, MUC, RUC, and WLC, with all involving 1 or 2 birds except MUC where 8 were involved. House Wren: 22 Dec (1) Columbia CBC (Allen Pressnell); 29 Dec (4) Hickory-Priest CBC (SJS, DFV, m. ob.), high number, probably lingerers in warm December. Winter Wren: numbers decreased with the cold temperatures of late winter. Marsh Wren: 1 Dec (1) CCNWR (SJS, BHS, *et al.*); none on the CBCs. Golden-crowned Kinglet: generally much reduced in numbers after the arrival of cold weather in January; last report 14 Jan (1) MUR (ALH). Ruby-crowned Kinglet: also much reduced by cold; last report 9 Jan (2) BAL (DWB). Eastern Bluebird: no perceptible effect due to cold on this species. Gray Catbird: 29 Dec (1) Hickory-Priest CBC (*fide* MPS). Brown Thrasher: normal number of reports. Water Pipit: 8 Dec (75+) Bear Creek Waterfowl Management Unit, SWC (DWB), largest number reported; thereafter only a few reports of a few birds each.

Warbler—Longspur: Orange-crowned Warbler: 23 Dec (1) DRU (BHS), rarely reported in winter, this one due to warm December no doubt. Yellow-rumped Warbler: commonest in the bottomlands, but not easy to find in areas where normally present in past. Palm Warbler: 29 Dec (1) Hickory-Priest CBC (SJS, DFV); 30 Dec (2) Duck River Reservoir CBC (*fide* ARL); only reports. Common Yellowthroat: 30 Dec (1) Duck River Reservoir CBC (DRG, III); only report. Rose-breasted Grosbeak: 12-13 Jan (1 male) MUC (Joe W. High, Jr., *fide* ARL). Indigo Bunting: 5 Jan (1 banded and photographed) west Nashville (John N. Riggins, Heather Riggins). Dickcissel: 1 Dec-19 Jan (1 male) CLA (AHH). American Tree Sparrow: region-wide invasion beginning 9 Jan (1) BAL (DWB); then none till 1-18 Feb (2) DOV (DWB); 1, 6, & 7 Feb (1) South Tunnel, SUC (Bessie Hagan); 1-12 Feb (1) LOR (Don K. Simbeck, *et al.*); 2-19 Feb (up to 6) CLA (AHH, *et al.*); 3-7 Feb (2) CLA (EJW); 8 & 18 Feb (1) Pennington Bend, DVC (MLM); 9-17 Feb (up to 125) PAP (SJS, ATT, LDR, CGD); 12 Feb (1) MUR (Lou A. Erwin); 12-13 Feb (up to 20) GAL (DTC, JPC); 12 Feb (2) BAH (RWS); 13 Feb (1) Nashville (Marge and Oscar Patrick); 16 Feb (2) Metro Center, DVC (CGD); and 20 Feb (15) CCNWR (TJW, PCH). Chipping Sparrow: 4 Jan to EOP (1) CLA (AHH, m. ob.), rare winterer. Vesper Sparrow: 30 Dec (1) Duck River Reservoir CBC (DRG, III), probably a late-lingerer; 12-13 Feb (1) DOV (DWB), probably an early arrival; either record might be of a wintering bird, however. LE CONTE'S SPARROW: 16 Feb (1) CCNWR (DWB), only report. Lincoln's Sparrow: 9 Jan (1) BAL (DWB), only report. Dark-eyed (Oregon) Junco: although reported nearly annually, this subspecies generally cannot be distinguished from some Slate-colored individuals, which merge clinally in features with Oregon individuals in the northwest, thus prompting the lumping of the two into one species. Lapland Longspur: 1 Dec (1) CCNWR (*fide* SJS); 28 Dec (1) DRU (SJS, PBH).

Blackbird—Grosbeak: Yellow-headed Blackbird: 27 Jan-(Feb (1 male) Donelson, DVC (Richard Craig, Richard Newton, m. ob.), possibly present since late August, 1984, this bird appeared injured, but recovering; 21 Jan (1) Bellevue, DVC (Camille Crenshaw); 27 Jan (1) GAL (DTC, JPC); about 7th, 8th, and 9th NA records. Rusty Blackbird: widespread with large numbers present; largest 9 Feb (500+) PAP (SJS, ATT, LDR). BREWER'S BLACKBIRD: 29 Dec (4) Murfreesboro CBC (TJW *et al.*), first NA record in 10 years; 29 Dec (1 female) northeast of Deerfield, LWC (GNP, DJS). Common Grackle: 29-30 Jan (300,000+) north-central WMC (BHS), largest number reported. Northern Oriole: 14 Dec (1 female) Love Circle, DVC (Jan C. Alexander); 3-21 Jan (1 male) LOR (DJS *et al.*), found frozen on last date; specimen to Univ. of N. Alabama. Purple Finch: late arriving and lower in numbers than in a "normal" year (ATT, DTC, JPC, RWS, ALH, EJW, AHH, DJS, DWB); about normal numbers only at two sites—LEF (SJS) and south of COL (*fide* ARL). House Finch: fewer than in previous winter, but in good numbers and widespread. COMMON REDPOLL: 21 Jan (1 male) 3.5 mi SW of DOV (DWB), very rare winter visitor; details will be published. Pine Siskin: late arriving with most sightings occurring in February; few concentrations of more than 10 birds. American Goldfinch: very high numbers present in Montgomery Co. (AHH), Putnam Co. (RWS), and WMC (SJS, BHS); usual numbers almost everywhere else. Evening Grosbeak: 6 Dec (2) south DVC along Hillsboro Pike (BHS); a pitiful echo from the preceding winter.

Corrigenda: *Migrant* 54: 44, 1983—amend the entry for Dark-eyed Junco as follows: change "(1 'Oregon')" to "(1 possible 'Oregon')." *Migrant* 54: 43, 1983—at the end of the entry for Western Grebe add the following: "first Nashville Area record." *Migrant* 55: 47, 1984—change the entry for Palm Warbler: 16 Dec (1) Hillsboro, CFC (ELR). Black-and-white Warbler: 8 Dec (1) Edgar Evins State Park, Dekalb Co. (MLM), Late." *Migrant* 55: 47, 1984—at the beginning of the locations list add: "BAL—Bard's Lake, Stewart Co." *Migrant* 55: 52, 1984—change "DRH—David R. Hassler" to "JDH—J. David Hassler."

Key to Location Codes (and other Abbreviations): ad.—adult; BAH—Barnes Hollow, Putnam Co.; BAL—Bard's Lake, Stewart Co.; CBC—Christmas Bird Count; CCNWR—Cross Creeks Nat. Wildl. Refuge, Stewart Co.; CHC—Cheatham Co.; CLA—Clarksville, Montgomery Co.; COL—Columbia, Maury Co.; DOV—Dover, Stewart Co.; DRU—Duck River Unit, Tenn. Nat. Wildl. Refuge, Humphreys Co.; DVC—Davidson

Co.; EOP—End of Period; FRR—Franklin Reservoir, Williamson Co.; GAL—Gallatin, Sumner Co.; HPC—Humphreys Co.; im.—immature; LEF—Leiper's Fork, Williamson Co.; LHL—Laurel Hill Lake, Lawrence Co.; LOR—Loretto, Larence Co.; LWC—Lawrence Co.; MUC—Maury Co.; MUR—Murfreesboro, Rutherford Co.; NA—Nashville Area (includes all of Davidson Co. and parts of seven surrounding counties); NWR—Nat. Wildl. Refuge; OHL—Old Hickory Lake (in several counties); PAP—Pardue's Pond, Dickson Co.; PPL—Percy Priest Lake (in several counties); RDL—Radnor Lake State Natural Area, Davidson Co.; RUC—Rutherford Co.; SUC—Sumner Co.; SWC—Stewart Co.; WDR—Woods Reservoir, Franklin, Co.; WLC—Wilson Co.; WMC—Williamson Co.

STEPHEN J. STEDMAN, Rt. 6, Pinewood Rd., Franklin, TN 37604.

EASTERN RIDGE AND VALLEY REGION—According to Glen Eller December was warm at Johnson City with low 70 degree temperatures being recorded at the end of the month. Then, January turned very cold and snowy with a total of 17½ inches of snow being recorded. On 21 January they registered a -21°F, the lowest ever recorded for the area. February remained cold and snowy thru the 20th with their biggest snowfall of the winter coming on the 12th when they had a total of 8 inches.

At Knoxville Chuck Nicholson commented December was very warm and high temperature records were set on several days at the end of the month. Early January was warmer than average, but the rest of the period was colder than average. Snowfall at Knoxville was heavier than in recent years and stayed on the ground a bit longer than normal. The massive cold front on 20 January brought heavy snow and record low temperatures. The low at Knoxville on 21 January was -24°F, an all time record low for their area.

The weather is always less harsh at Chattanooga since it is farther south than the other reporting areas. December was the ninth warmest on record with a high of 73°F being set on the 31st. The record cold day was 21 January at a -10°F and the greatest amount of snow was 2.1 inches on the 28th.

All of the above weather had a profound effect on the region's avifauna. Some of the effects were observed and reported while most of the results were apparently unnoticed or worse, observed and not reported to the compilers!

Eller stressed the warm weather in December had a definite effect on their Christmas Bird Counts as they recorded about the same overall species total, but the total number of individuals was about half of what would be expected. They had a few late dates, but, in summary, thought they had a rather dull period.

For the Knoxville area Nicholson commented they had a few reports of lingering species in December and early January while the Christmas Bird Counts were low mostly because of the absence of northern finches.

Nicholson did stress that late frosts the past two springs killed almost all the oak flowers and there was essentially no red or white oak mast available. The number of Blue Jays in the Knoxville area was very low with their numbers on CBCs the lowest in many years. Eller made a similar observation from his area while no comment was received on the subject from anyone in the Chattanooga area.

One subject that did receive universal comment from everyone this season was the lack of northern finches. They were practically nonexistent. There was only one report for the whole region of a Red-breasted Nuthatch, the lowest number of Purple Finches in memory and, apparently, even reduced numbers of House Finches. Then, what happened in an off year like this, two White-winged Crossbills showed up at feeders in Chattanooga! A few Pine Siskins showed up in January and there were no reports of the conspicuous Evening Grosbeak.

As usual there is a great deal of information to be gleamed by a close reading of the report.

Loon—Night-Heron: Red-throated Loon: 15 Dec (1) CHL (Brainerd Cooper, Jr.) - CBC. Common Loon: 2-4 regular BOL (RLK *et al.*); regular CHL, max 13 (KHD, LHD, RAR). Pied-billed Grebe: at KNX about normal numbers early in the winter, but greatly increased numbers present after the freeze - a count of 55 on 5 Feb in Concord area of FLL was very high for their region (MLD, JAK, CPN); regular CHL, max 181 on CHA CBC. Horned Grebe: 10 Feb (1) (RLK); 6 Jan & 16 Feb (2) BLC (JAK); regular CHL, max 62 on CHA CBC. Double-crested Cormorant: 1-10 Jan (1-2) BOL (RLK); 9 Dec (3) FLL (JAK); 18 Jan (3) WBL (Wesley K. James); 23 Feb (1) FLL (BRC, JMC); regular CHL, max 7 (KHD, LHD). American Bittern: 16 Feb (1) SAB (J. Thomas Patton, David C. Patton). Great Blue Heron: regular DOL, max 92 (JAK); higher than normal numbers present in KNX area after the freeze - 45 in Concord area of FLL on 5 Feb (MLD, CPN); regular HRA with a max of 497 on the CBC - this is a remarkable count for the area with the warm weather and the flourishing nesting colonies nearby probably combining to produce these numbers; of course, individuals from the other areas could certainly be mixed in. Black-crowned Night-Heron: present through winter on FLL (JAK).

Waterfowl: Tundra Swan: 6 Jan (1) CVL (BRC, JMC); 1 through period on CHL at Cottonport, Rhea Co. (T. Edward Beddow); 1 Dec - 16 Feb (1 regular) Soddy, CHL (James C. Brown, *et al.*). Snow Goose: 8 Dec (4) HRA (KHD, LHD); 8 Feb (1) Clinton (CPN); 18 Feb (7) HRA (KHD, LHD). Snow Goose (blue phase): 8 Dec (10) HRA (KHD, LHD); 17 Feb (1) Tellico L., Monroe Co. (ABS, Barbara Finney); 18 Feb (7) HRA (KHD, LHD). Canada Goose: regular, max 24 Jan (1035) HRA (TWRA). Wood Duck: 2-4 all period JNC (LHTOS) - they seldom winter in this area. Green-winged Teal: 7 Dec (5) BOL (RLK, EHS) - only sighting there; only noted sporadically HRA this winter, max of 225 on 8 Dec (KHD, LHD). American Black Duck: regular, max 7 Jan (2788) CHL (TWRA). Mallard: regular, max 7 Jan (8312) CHL (TWRA). Northern Pintail: 1 Feb (2) BOL (RLK) - only report there; 1-85 occasional HRA (KHD, LHD); 8 Feb (21) SAB (RAR). Blue-winged Teal: 6 Jan (5) CVL (BRC, JMC). Northern Shoveler: 22 Feb (2) BOL (Sally Goodin, Glenn Swofford) - only record there; 7 records CHL, SAB, HRA of 2-12 individuals (KHD, LHD, TWRA). Gadwall: regular, max 7 Jan (3017) CHL (TWRA). American Wigeon: regular, max 7 Jan (1889) CHL (TWRA). Canvasback: 25 Feb (1) BOL (RLK) - their only sighting; 15 Dec - 18 Feb (1-7) CHL (KHD, LHD, RAR). Redhead: 17 Feb (6) CHL (KHD, LHD); 24 Feb (70) CHL (KHD, LHD). Ring-necked Duck: regular, max 7 Jan (890) CHL (TWRA). Greater Scaup: regular, max 17 Feb (250) CHL (KHD, LHD). Lesser Scaup: they were more regular on CHL this year than in the past, max 22 Dec (170) CHL (KHD). Oldsquaw: 5-28 Feb (1-3) FLL (MLD, CPN *et al.*). Surf Scoter: 22 Dec (1) CHL (KHD). White-winged Scoter: 6 Jan (2) CHL (KHD, LHD); 23 Feb (1) FLL (BRC, JMC). Common Goldeneye: increase in numbers FLL after the freeze - 60 at Concord, FLL, on 5 Feb (MLD, CPN); 50 there on 26 Jan (BRC, JMC); only 8 there on 26 Feb (BRC, JMC); regular, max 15 Dec (84) CHL (KHD, LHD) - CBC. Bufflehead: regular CHL, but noted only sporadically with max of 45 on 7 Jan (TWRA). Hooded Merganser: 6 Jan (62) BLC (JAK); observations limited this season from the lower section of the region, only recorded 10 times, max 8 Dec (60) HRA (RAR, KHD, LHD). Common Merganser: 25 Jan (2) BOL (RLK, Richard Clark) - only report for the region. Red-breasted Merganser: 7 Dec, 10 Feb (1) BOL (RLK); 7 reports CHL with max of 12 (KHD, LHD, RAR). Ruddy Duck: regular CHL with max of 62 (KHD, LHD, RAR).

Vulture—Tern: Black Vulture: 16 Feb (150) Nickajack Dam roost (DRJ*et al.*). Turkey Vulture: 16 Feb (50) Nickajack Dam roost (DRJ *et al.*). Osprey: 1 Jan (1) HRA (Mark E. Reeves) on CBC. Red-shouldered Hawk: 4-28 Feb (1-2) along the Nolichucky R., lower WGC (LHTOS) - reports from this section are limited. Rough-legged Hawk: 18 Feb (1 light phase) HRA (RAR). American Coot: appeared to be in reduced numbers in lower section of the region, max 1 Jan (1654) HRA on CBC. Sandhill Crane: 4-6 Dec (5 flocks of 117 individuals) Old Washington, HRA (CWC, Clarence D. Coffey); 9 Jan (4) HRA (CWC) - at the time of observation these birds were flying north, were they migrating or wintering?; then, a total of 1165 cranes were counted between 21 Feb and 23 Mar in Hamilton, Marion and Meigs Counties. Least Sandpiper: 3 records of 3-8 birds SAB (KHD, LHD). Dunlin: 19 Jan (14) DOL (JAK); only 4 records of 30-47 individuals SAB (KHD, LHD). Common Snipe: 16 Feb (4) BLC (JAK); regular, max 18 Feb (127) SAB (KHD, LHD). Bonaparte's Gull: at a roose site, max 19 Jan (100) CHL (DRJ *et al.*): 7 Dec (7) BOL (EHS, MD). Ring-billed Gull: after the hard freeze, up to 750 FLL (MLD, CPN); 100+ DOL all season (JAK); max 19 Jan (1500) CHL rooste site (DRJ *et al.*). Herring Gull: max 19 Jan (50) CHL roost site (DRJ *et al.*). Forster's Tern: 1 Jan (1) HRA (Randy C. Stringer, RLK) on CBC.

Owls—Warblers: Common Barn-Owl: 19 Feb (2) CHA (RAR, JTP). Red-headed Woodpecker: 1-2 apparently wintered JNB (RLK *et al.*); max 4 birds wintered CHA (RAR). Eastern Phoebe: 1-3 irregular JNC (RLK *et al.*). Horned Lark: 17 Dec - 5 Jan (2-3 flocks of 25-40 birds) lower WGC (RLK *et al.*); 10-20 WHP all period (JAK). Tree Swallow: 17 Jan (1) Chickamauga Dam (Albert M. Jenkins). Blue Jay: very low numbers in both the KNX and JNC areas (LHTOS, CPN *et al.*). Red-breasted Nuthatch: 15 Dec (1) CHA CBC (LHD). House Wren: 10, 15 Dec (1) CHA (RAR); 16 Feb (1) CHA (R. John Henderson). Golden-crowned Kinglet: numbers in NOR, KNX areas higher than normal in early winter with a marked decrease in numbers following the mid-January freeze (KTOS). Blue-gray Gnatcatcher: 10 Jan (1) KNX (BMM). American Robin: present KNX in much higher than normal numbers (KTOS). Gray Catbird: 10 Dec (1) CHA (RAR). Brown Thrasher: none reported from JNC where they usually have 2-3 present (LHTOS); several present at KNX and NOR with singing noted there at the end of the period (KTOS); one regular BLC after 24 Jan (JAK). Orange-crowned Warbler: 26 Dec (1) LaF (GWM). Yellow-rumped Warbler: at KNX higher than normal numbers present early in the winter with some decrease in numbers after the freeze (KTOS). Yellow-throated Warbler: 8 Dec (1) KNX (BMM). Pine Warbler: no reports KNX during the middle of the winter, but several singing birds present in late February

(JMC, CPN *et al.*). Palm Warbler: 27-28 Dec (1) JNB (RLK); 15 Dec (5) CHA CBC (Peter P. Robinson); 16 Dec (2) KNX CBC (*fide* JBO); 1 Jan (1) HRA (CPN, ABS) on CBC; 18 Feb (1) LaF (GWM).

Sparrows—Siskin: American Tree Sparrow: in the mid-section of the region several reports of single birds or small flocks at feeders in mid-February, at LaF (up to 3, first 13 Feb) (GWM), KNX (first 12 Feb, singles in at least 2 locations) (*fide* JBO), and Maryville (first 13 Feb, 1 bird) (*fide* JBO). These were their first local reports of Tree Sparrows since the heavy snow winters there in the late 1970's and this was a heavy snow winter. Chipping Sparrow: 13 Jan (1) CVL (CPN); 28 Jan (12) Collegedale (GLF); 20-30 regular at feeder, Ocoee, Polk Co. (J. Craig & Susan Watson); 2 Feb (4) LaF (GWM); first spring report JNC 12 Feb (MD). Vesper Sparrow: 30 Dec (1) CHA (RAR). Savannah Sparrow: lower numbers WHP this season; in past could usually flush 10-20, this year only 2-3 (JAK). Grasshopper Sparrow: 1 Jan (1) HRA (CPN, ABS) on CBC. White-crowned Sparrow: regular one location WHP and two sites Greene Co. (JAK). Lapland Longspur: 3 present through period at Doak's Pond, Campbell Co. (GWM). Purple Finch: probably the lowest number reported in many years with only 1-2 individuals at 2-3 feeders in the JNC area; in the KNX area only 20-40 on their CBCs with a modest increase in numbers after the freeze; at CHA the story was similar with the largest number being 30 at one feeder (JAP). House Finch: this species has seemingly replaced the Purple Finch as the dominate winter finch at the feeders in the JNC area with numerous flocks of 8-18 birds being reported (LHTOS); scattered numbers were reported at feeders in CHA, but apparently not as common as last year (Chattanooga Chapter, TOS. **WHITE-WINGED CROSSBILL**: 3-6 Feb (1 male) Hixson area, CHA (DRJ, Kathy Davidson *et al.*); 3-28 Feb (1 female) East Brainerd, CHA (Michael A. & Barbara McMahan *et al.*); details to be published. Pine Siskin: no reports at all from JNC (LHTOS); no reports from KNX until mid-January, when at least 3 flocks of 3-8 appeared at feeders in the area (BRC, JMC, *fide* JBO); in the lower part of the region very few reports were received with only 5 records of 1-2 individuals noted after 6 Jan at Soddy, CHA, Cleveland, Hixson and Collegedale (DRJ, GLF, JAP, Paul H. Dietrich).

Locations: BLC - Blount County; BOL - Boone Lake; CHA - Chattanooga; CHL - Chickamauga Lake; CVL - Cove Lake; DOL - Douglas Lake; FLL - Fort Loudoun Lake; HRA - Hiwassee River Area; JNC - Johnson City; JNB - Jonesborough; KNX - Knoxville; LaF - LaFollege; NOR - Norris; SAB - Savannah Bay; WGC - Washington County; WBL - Watts Bar Lake; WHP - White Pine.

KENNETH H. and LILLIAN H. DUBKE, 8139 Roy Lane, Ooltewah 37363.

EASTERN MOUNTAIN REGION - Despite this being a winter of extreme weather, there were few notable bird observations. December was much warmer than normal, with highs in the lower 70s°F as late as 1 January. This warm weather had a definite effect on Christmas Bird Count numbers and on overall population levels. While species numbers on the 3 counts in the region were near average, the total number of birds seen was reduced almost one half. This trend was noticed throughout the early part of the winter.

January turned very cold and snowy with a total of 17.5 inches of snow at Elizabethton. On 21 January, an all-time record low was set at Elizabethton at -21°F. February remained cold and snowy with the biggest snowfall of the year, 8 inches, falling on 12 February. The cold, snowy weather did not noticeably change bird activity. There were practically no northern finches. Purple Finches were in very low numbers, only a couple of reports of Pine Siskins were received, and no Evening Grosbeaks were reported. Red Crossbills were present in the Smokies, but no crossbills were observed in the northern area of the region.

In spite of the bitter cold weather, Eastern Phoebe, Carolina Wren and Eastern Bluebird numbers did not noticeably decline. Sharp-shinned Hawks, several species of woodpeckers, and American Robins were more numberous than in past winters. Cooper's Hawks and Blue Jays were present in about half their usual numbers.

Once again, I would like to appeal to birders within this region to send in their observations so we can have a more complete picture of birdlife within the entire region, rather than just the northeastern corner.

Loon - Hawk: Common Loon: 1-3 regular thru period at WTL, SHL (*fide* GDE). RED-THROATED LOON: 29-30 Dec (1) SHL (REL, JWC). Horned Grebe: 11 Jan (1) WIL (MD, HHD); 3 Feb (1) WTR (GDE). Double-crested Cormorant: 13 Dec (1) WTL (RLK); 29 Dec (1) SHL (JWC). Mute Swan: 3 Feb (6) SHL (JWC). Canada Goose: 25-28 Feb (3-7) WTR (GDE). Wood Duck: 2-5 spent winter in ELI area (*fide* GDE). Oldsquaw: 15 Dec (1) WTL (RLK, EHS). Hooded Merganser: 4 Dec (5) Ripshin Lake (Frank Ward); 15 Dec (1) Walnut Mtn. Pond (RLK, EHS). Northern Harrier: 31 Jan (1) ELI (GDE). Sharp-shinned Hawk: more numerous than normal, 14 sightings in ELI area (*fide* GDE). Cooper's Hawk: low, only 4 sightings in ELI area (GDE). Red-shouldered Hawk: 22 Dec, 25 Feb (1) SHL (REL); 10 Feb (1) ERW (GWS).

Killdeer - Pipit: Killdeer: 1 flock of 120-150 birds in Siam Valley near ELI, thru EOP (GDE). Common Barn-Owl: 20 Jan (1) SHL (REL). Great Horned Owl: 20 Jan - EOP (3) SHL (REL); 22 Dec (1) PWB (RC); 21 Feb (1 on nest) WIL (RLK). Red-headed Woodpecker: 1 spent winter near ELI (GDE); 10 Jan (2) ERW (GWS). Blue Jay: very low numbers throughout period. Hermit Thrush: present but very localized in ELI area (*fide* GDE). American Robin: 3 Feb (flock of 750+) ELI (GDE); higher than usual numbers thru winter. Brown Thrasher: 1 Dec (1) Unicoi (REL), only report. Water Pipit: 7 Dec - 26 Feb (5-25) PWB (RC).

Shrike - Grosbeak: Loggerhead Shrike: 11 Dec (1) PWB (RC); 8 Jan (1) WTR (RLK). Chipping Sparrow: 15 Feb (1) ERW, (GWS), first spring sighting. Fox Sparrow: almost non-existent, then very numberous after 21 January (*fide* GDE). SNOW BUNTING: 27 Jan (1) North Carolina side of state line, 3.5 mi SW of Newfound Gap, Great Smoky Mtns. Nat. Park (CPN). Purple Finch: no large flocks reported, present in very low numbers. House Finch: numerous at feeders in ELI area (*fide* GDE). Red Crossbill: 30 Dec (64) Great Smoky Mtns. CBC (KTOS *et al.*), present at high elevations there thru EOP (CPN). Pine Siskin: 13 Feb (25) ERW (GWS); 17, 19 Feb (1) ELI (Harry Farthing), only reports. Evening Grosbeak: NO REPORTS.

Locations: ELI - Elizabethton; ERW - Erwin; PWB - Powder Branch, near Elizabethton; SHL - South Holston Lake; WTL - Watauga Lake; WTR Watauga River; WIL - Wilbur Lake.

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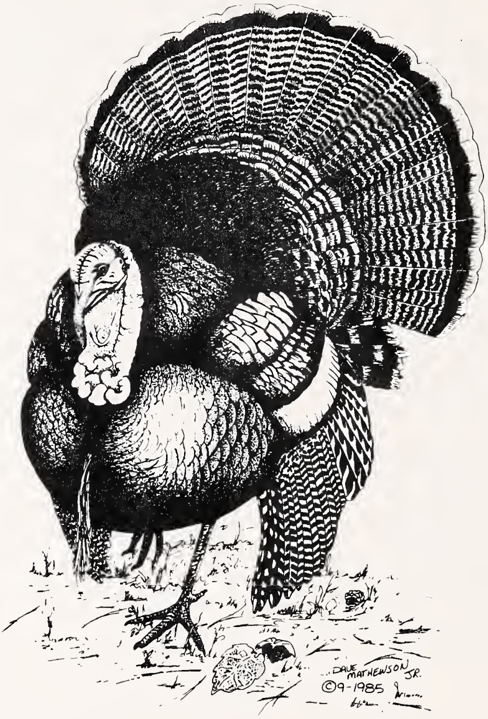
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COLOR PHASES OF THE EASTERN SCREECH-OWL IN TENNESSEE

Linda J. Fowler

In the eastern part of its range, the Eastern Screech-Owl (*Otus asio*) occurs in two distinct color phases (red and gray) which are independent of sex, age, or season. The relative frequency of red phase birds generally follows a cline from north to south with about a quarter of the northern population composed of red phase birds and up to three quarters of the southern population (Gulf Coast and Florida excluded) in red phase birds (Owen 1963). Birds intermediate in coloration occur in low frequency in most of the bird's range. Only two Tennessee researchers have investigated color phase in the screech-owl. Stupka (1963) collected dead on road (DOR) screech-owls in the Great Smoky Mountains National Park (GSMNP) from 1936-1954 and reported a ratio of greater than 4:1 red to gray phase for 104 DOR screech-owls. In a Nashville study, Laskey (1963) noted a 1:1 red to gray phase ratio for 97 owls brought to her attention over a 32-year period (banded birds, DOR birds, miscellaneous observations, etc.). To date, there have been no studies that focus on color phase of the screech-owl in the Ridge and Valley Physiographic Region of Tennessee. The purpose of this paper is to report on color phases of Eastern Screech-Owls that were collected dead on Tennessee roads from 1976-1982 and banded in Tennessee from 1977-1982, primarily in the Ridge and Valley Physiographic Region.

METHODS

Between November 1976 and February 1982, DOR screech-owls were collected by me or others knowledgeable of my study. Birds were brought back to the laboratory where they were sexed by internal examination and the color phase was recorded. In addition, stomach contents were analyzed; these results have been reported elsewhere (Turner and Dimmick 1981). From May 1977 to May 1982 screech-owls were captured in wooden owl boxes located in Knox and Anderson Counties, Tennessee, and in Wood Duck (*Aix sponsa*) boxes located along the Holston River in Hawkins County. Both adult and nestling birds were banded using U.S. Fish and Wildlife Service No. 5 lock-on bands, and the color phase was recorded.

RESULTS AND DISCUSSION

A total of 191 DOR screech-owls was collected from 34 of the 95 counties in Tennessee, predominantly (87%) in the Eastern Ridge and Valley Region from 1976-1982. Four of these birds (all red phase) were collected from counties in the Western Coastal Plain and 12 birds (7 red, 4 gray, 1 intermediate) from the Central Plateau and Basin. Of the total birds, 74% were red, 22% were gray, and 4% intermediate in coloration, which basically agrees with Owen (1963). He examined museum specimens throughout the United States and reported 79% red phase birds from Tennessee. The ratio of 3.4:1 red to gray phase birds in my study was only slightly lower than the 4:1 ratio reported previously by Stupka (1963) for the GSMNP. However, my ratio differs significantly from the 1:1 ratio of Nashville birds reported by Laskey (1963).

Sex was determined for 127 of the 191 DOR birds (Table 1). Ratio of male to female birds was approximately 1:1, which agrees with the sex ratio of screech-owls from an Ohio study (VanCamp and Henny 1975). Ratio of red to gray birds for the sexed birds was nearly identical to the total DOR sample. No significant relationship was detected between sex and color phase of DOR birds (chi-square test). Although it was first concluded in 1874 (Baird *et al.* 1874) that color phase was independent of sex in screech-owls, VanCamp and Henny (1975) doubted that this theory had been tested using a large sample of birds from a given area. Subsequently, VanCamp and Henny (1975) examined 760 nesting screech-owls from northern Ohio and reported no relationship between sex and color phase, which agrees with my findings.

Table 1. Sex and color phase of 127 Eastern Screech-Owls found dead on Tennessee roads 1976-1982.

Sex	Red	Gray	Intermediate	Total
Females	46 (36%)	13 (10%)	6 (5%)	65 (51%)
Males	48 (38%)	12 (9%)	2 (2%)	62 (49%)
Total	94 (74%)	25 (20%)	8 (6%)	127 (100%)

Of 225 screech-owls banded between 1977-1982 (105 adults, 120 juveniles), 62% were red, 36% were gray, and 2% were intermediate in coloration (Table 2). The ratio of red to gray owls (1.7:1) was nearly identical for adult and juvenile birds. Intermediates were not detected in juvenile birds and if present were probably misclassified as to color phase. Ratios of red to gray

Table 2. Color phase of 225 nestling and adult owls banded between 1977-1982.

Age	Red	Gray	Intermediate	Total
Adult	64 (61%)	37 (35%)	4 (4%)	105 (47%)
Nestling	76 (63%)	44 (37%)	0	120 (53%)
Total	140 (62%)	81 (36%)	4 (2%)	225 (100%)

phase birds differed significantly among banded and DOR birds. A good explanation to account for these differences is not available. Gray phase owls may be less noticeable on gray and black road surfaces resulting in possible underestimation of gray phase owls in the DOR sample.

However, if it is assumed that the banded sample more accurately reflects the true color phase ratio in the population, then some type of differential mortality between red and gray phase owls must be present. Mosher and Henny (1976) reported that metabolic rates of gray phase screech-owls enabled them to withstand cold temperatures better than red phase owls. Thus, differential survival rates (along with other environmental factors) among red and gray phase owls accounts for higher number of gray phase birds in the north. Higher survival for gray phase birds during extremely cold weather has also been reported in Ruffed Grouse (*Bonasa umbellus*) by Gullion and Marshall (1968). Although not tested, Mosher and Henny (1976) speculated that hot, humid weather may reduce survival of gray birds in the more southern parts of its range. Future long-term field and laboratory studies should provide more insight into color phase differences in the screech-owl.

ACKNOWLEDGEMENTS

I thank the Tennessee Valley Authority for providing nest boxes and some financial assistance for this study and the University of Tennessee Agricultural Experiment Station for use of their facilities. I also appreciate the helpful comments made by Dr. Ralph Dimmick, Dr. David Pitts, and Dale K. Fowler on an earlier draft of this manuscript. Special thanks are due to all individuals that collected DOR owls for this study.

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FIRST RECORD OF LONG-TAILED JAEGER IN TENNESSEE

Stephen J. Stedman

On 2 September 1984 a Long-tailed Jaeger (*Stercorarius longicaudus*) was studied and photographed near Island No. 13, about 15 km southwest of Tiptonville, Lake County. This sighting constitutes the first state record of this species and the second state record of a member of the Stercorariinae. Observers, besides myself, on 2 September included Barbara H. Stedman, Ronald D. Hoff, Audrey R. Hoff, and Randy C. Stringer. On 3 September Stringer observed the bird again, as did Paul C. Harris *et al.*; on 4 September Dot T. Crawford and J. Paul Crawford *et al.* saw the bird. Observers searching for it on 6 and 8 September were unable to locate it. On 2 September the bird was photographed by me, R. D. Hoff, and R. C. Stringer, and on 4 September photographs were obtained by J. P. Crawford.

Unlike the majority of jaegers observed in the fall, this bird appeared in nuptial plumage (Figure 1). The long tail streamers, its most striking feature, were still quite prominent, extending well beyond the folded wings; its underparts were white or slightly offwhite with no trace of the barring prominent on winter-plumaged birds; and in good light the yellowish wash typical of breeding condition could still be detected on the bird's cheek and upper neck. In addition, the white at the base of the primaries characteristic of the jaegers was limited to the two outermost primaries, which definitively separated this bird (Figure 2) from the Parasitic Jaeger (*S. parasiticus*). Also, the tarsi of the bird were dark gray or blackish, which is consistent with descriptions of some individuals of this species (Cramp 1983), although the tarsi of most individuals have a bluish cast. Because this bird did not closely associate with any other bird while under observation, it was difficult to judge its size. However, its buoyant and agile flying was entirely in conformance with descriptions of the flight of *S. longicaudus* (Cramp 1983).

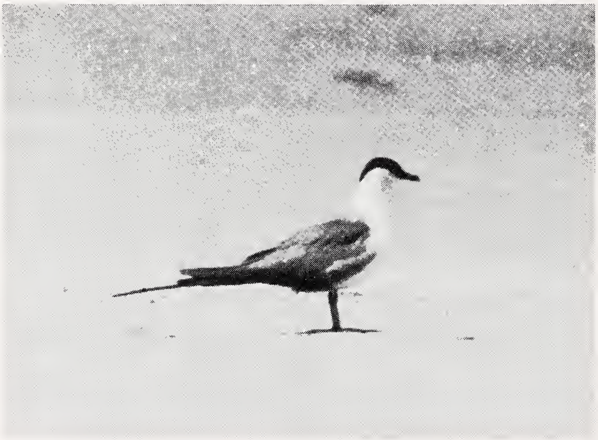

Figure 1. Long-tailed Jaeger. Photograph by J. Paul Crawford.

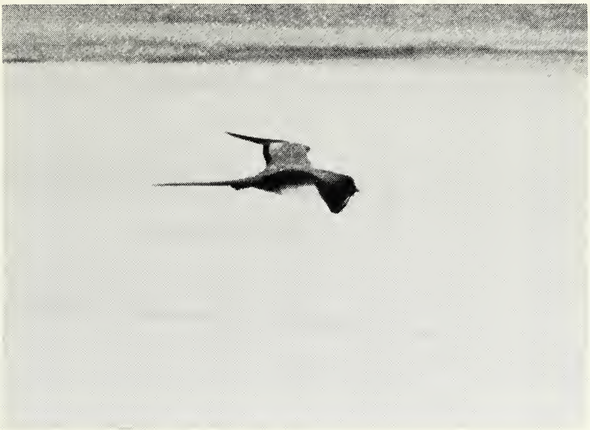

Figure 2. Long-tailed Jaeger in flight. Photograph by Ronald D. Hoff.

Migrants of this species do not normally feed extensively while in passage (Cramp 1983), but while under observation on 2 September this bird was noted hawking for insects, which it readily captured after swift pursuit. This behavior was also noted on 4 September (D. T. Crawford pers. comm.). The bird consumed all of each prey item it was seen to capture. On one occasion it swallowed an insect, and in the process of swallowing it one wing of the insect fell to the ground; the bird retrieved and swallowed the wing, although the nutritional value which it offered must have been minimal. Additionally, the bird picked up small items from the ground and ingested them; these may have been edible items or grit. If the latter, it would represent an infrequently noted feeding behavior as Bent (1921), Terres (1980), Pforr and Limbrunner (1981), and Cramp (1983) do not mention it in their discussions of this species' food habits.

The habitat which the bird frequented during the time it was under observation on 2, 3, and 4 September consisted of a 1-km-wide sandbar adjacent to the Mississippi River. During most of the time that the bird was seen 2 September, it remained close to the river's edge, though occasionally it would fly inland a few hundred m; it was not observed flying inland from the river far enough to leave the airspace over the sandbar. Perhaps because the sandbar was quite hot on its surface (probably over 40°C), the bird bathed a few times at the river's edge; the bird was also observed panting several times.

One other sighting of a member of the Stercorariinae has occurred in Tennessee, also in early fall. On 16-17 September 1978 an immature jaeger was sighted at Woods Reservoir, Franklin County, by M. L. Bierly, D. F. Vogt *et al.* It was photographed and initially identified as a Parasitic Jaeger (Purrington 1979), but a later discussion of the bird indicated that some uncertainty about its identification existed (Bierly 1980). The states adjacent to Tennessee have few records of the Long-tailed Jaeger. Those bordering the Atlantic Ocean, such as the Carolinas, record the species rarely (Potter *et al.* 1980) but with more frequency than those which border the Gulf of Mexico, such as Alabama where only 2 tentative records exist (Imhof 1976; Imhof pers. comm.), or those which are entirely inland, such as Kentucky (Mengel 1965) and Arkansas, where at least one sighting has occurred (Purrington 1975). These records are sparse enough to reinforce the notion that the Long-tailed Jaeger is "very rare in the interior" (Godfrey 1966). However, since it has also occurred overland in migration in such diverse sites as Kenya and Switzerland (Cramp 1983), there is no reason to suppose its occurrence at midcontinent in Tennesse is other than a normal, if rarely observed, migratory phenomenon.

I thank Ronald D. Hoff and J. Paul Crawford for offering the use of the photographs which are included with this note. I thank J. Paul Crawford also for his assistance in obtaining black-and-white prints of the jaeger. My thanks also go to Barbara H. Stedman for offering comments on earlier versions of the manuscript.

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Shagbark, Rt. 6, Pinewood Rd., Franklin, TN 37064. Accepted 22 October 1985.

THE 1985 SPRING FIELD DAYS

Richard L. Knight

The 1985 Spring Field Days is the 40th annual count, as published in this format. This year 216 species were reported from 12 counts across Tennessee. The species total has been exceeded four times and equaled once, all within the previous decade. The number of counts is near the recent average. Among the unusual species reported, most notable were Yellow Rail, Common Moorhen, Northern Saw-whet Owl, Olive-sided and Scissor-tailed Flycatchers, and Le Conte's Sparrow. Once again, some rarities were reported with little or no documentation.

Comparison of numbers from year to year and even within one report of the Spring Field Days can yield important information, but should be made with caution. Conditions and methods vary more on this count than on the Christmas Bird Count. For instance, there were seven one-day counts and five two-day counts this year. Size of the area covered varies considerably, from one county to several adjacent counties. Also, there is a lack of units of effort (party-hours) which compensates for the difference in numbers of observers. These and other factors need to be taken into account when making comparisons.

INFORMATION ON THE COUNTS

MEMPHIS—28 April; Meeman-Shelby S.P. in morning, separate parties in afternoon at Penal Farm and along Mississippi R. to Robco L. & Mud L.; Ben B. Coffey, Jr. (compiler—672 N. Belvedere, Memphis 38107); group leaders: William Bean, Lula Coffey, Helen Dinkelspiel, George Payne, Noreen Smith, Martha Waldron, & Jeff Wilson. The Cattle Egrets were flying from Mississippi to a roost in Tennessee.

LAWRENCEBURG—11 May; Lawrence County; 0530 to 2100; clear; temp. 59-70°F; 8 observers in 4 parties-Andy Augustin, Raymond McCrory, Jennifer Moses, Ned Piper, Damien Simbeck (compiler—Rt. 2, Box 3A, Loretto 38469), Don Simbeck, Morris Williams, & Wylie Willis. The Tree Swallows were a nesting pair at Laurel Hill Lake. Also reported—*Accipiter* sp.-1, *Empidonax* sp.-1.

CLARKSVILLE—4 May; Montgomery County; partly cloudy; high temp. 75°F; 9 observers—Joe Allen, Mike Dinsmore, Annie Heilman, Andrea Hopkins, Nancy Hughes, John Quick (compiler—Rt. 1, Box 114-B, Cunningham 37052), Louise Reding, David Snyder, & Ellen Walker.

COLUMBIA—4-5 May; field trips of the TOS Spring Meeting; George Mayfield (compiler—999 Sunnyside Dr., Columbia 38401). The Yellow Rail was seen on 4 May by Jeff Wilson, Don Manning, & Mike Todd. Also reported—peep sp.-5, tern sp.-1.

NASHVILLE—11-12 May; fair with moderate temp.; 62 observers—Jan C. Alexander, Linda Anderson, John & Willa Bates, Sue M. Bell, Sandra Bivens, Jean Cobb, Bonnie Coplin, Kin Corsner, Dot & Paul Crawford, Marion Dorsey, C. Gerald Drewry, Milbrey Dugger, Evelyn & John Ellis, Adele & Nelson Elom, Bob English, John Filley, Karen Filley, Lucy & William Finch, Ray Fleischer, Doug Garza, Katherine A. Goodpasture,

1985 SPRING FIELD DAYS

	Memp	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Common Loon	--	--	--	2	--	--	--	--	3	--	--	--
Pied-billed Grebe	1	--	--	--	4	--	3	--	2	--	--	2
Double-cr. Cormorant	55	--	--	3	1	--	83	--	1	--	--	2
Great Blue Heron	2	--	--	1	5	1	10	3	14	7	2	3
Snowy Egret	2	--	--	--	--	--	--	--	--	--	--	--
Little Blue Heron	2	--	--	--	--	4	--	--	--	--	--	1
Cattle Egret	121	--	--	1	--	4	--	--	--	--	--	--
Green-backed Heron	11	12	1	16	37	4	5	1	4	12	4	22
Black-cr. Night-Heron	--	--	--	--	85	--	2	--	--	1	--	--
Yellow-cr. Night-Heron	4	--	--	--	5	--	--	--	2	--	--	4
Canada Goose	2	11	--	44	511	10	113	59	20	20	19	20
Wood Duck	18	14	6	12	58	2	6	8	21	51	22	35
Amer. Black Duck	--	--	--	--	--	--	--	--	--	--	6	--
Mallard	15	--	--	18	147	6	2	2	4	13	17	36
Blue-winged Teal	12	--	--	19	3	--	6	--	8	6	7	8
Northern Shoveler	--	--	--	--	--	--	--	--	2	11	--	--
Gadwall	--	--	--	1	--	--	--	--	--	--	--	--
American Wigeon	--	--	--	--	1	--	--	--	3	--	--	--
Canvasback	1	--	--	--	--	--	--	--	--	--	--	--
Greater Scaup	--	--	--	--	--	--	--	--	3	--	--	--
Lesser Scaup	6	--	--	1	--	--	--	--	--	--	--	--
Bufflehead	--	--	--	--	--	--	--	--	--	--	--	3
Hooded Merganser	--	--	--	--	--	--	--	--	5	--	--	--
Red-breasted Merganser	--	--	--	--	--	--	--	--	1	--	--	--
Ruddy Duck	33	--	--	--	--	--	--	--	--	--	--	--
Black Vulture	--	3	3	36	67	37	85	2	1	2	--	--
Turkey Vulture	--	31	4	35	77	5	9	14	10	42	5	13
Osprey	2	--	--	1	5	--	2	--	3	8	1	2
Mississippi Kite	1	--	--	--	--	--	--	--	--	--	--	--
Northern Harrier	--	--	--	1	--	--	1	--	--	--	--	--
Sharp-shinned Hawk	--	--	--	3	--	--	1	--	1	2	--	--
Cooper's Hawk	--	--	--	1	3	1	--	--	1	1	--	1
Red-shouldered Hawk	2	8	--	8	11	--	1	--	5	2	--	--
Broad-winged Hawk	4	6	--	8	9	1	1	--	5	6	3	3
Red-tailed Hawk	5	6	5	20	26	6	6	1	6	6	4	1
American Kestrel	--	2	--	11	24	13	3	3	1	5	2	9
Ruffed Grouse	--	--	--	--	--	--	--	--	--	2	1	3
Wild Turkey	6	--	--	--	--	--	--	--	--	--	--	--
Northern Bobwhite	18	30	12	40	170	42	7	12	19	44	25	15
Yellow Rail	--	--	--	1	--	--	--	--	--	--	--	--
Virginia Rail	--	--	--	2	--	--	--	--	--	--	--	--
Sora	-	1	--	8	2	--	--	--	--	1	1	2
Common Moorhen	--	--	--	--	1	--	--	--	--	--	1	--
American Coot	--	--	--	1	--	--	--	--	11	--	--	2
Black-bellied Plover	--	--	--	--	1	--	--	--	--	--	--	--
Lesser Golden-Plover	1	--	--	--	--	--	--	--	--	--	--	--
Semipalmated Plover	--	--	--	--	33	--	1	--	5	--	--	1
Killdeer	37	13	2	14	62	30	7	6	30	64	37	36
Greater Yellowlegs	7	--	--	1	4	--	1	--	3	1	--	12
Lesser Yellowlegs	29	--	--	3	8	--	1	--	3	7	--	46
Solitary Sandpiper	23	1	--	12	1	2	12	--	11	9	12	27
Willet	--	--	--	--	--	--	--	--	35	--	--	--
Spotted Sandpiper	5	1	1	5	24	--	6	--	5	16	3	10
Semipalmated Sandpiper	3	--	--	--	15	2	--	--	9	--	--	--
Western Sandpiper	--	--	--	--	21	--	--	--	--	--	--	--
Least Sandpiper	115	--	6	3	21	--	1	--	16	4	--	14
White-rumped Sandpiper	--	--	--	--	5	--	--	--	--	--	--	--
Pectoral Sandpiper	21	--	--	--	1	--	--	1	8	--	--	1
Dunlin	--	--	--	--	--	--	--	--	--	--	--	2
Stilt Sandpiper	2	--	--	--	--	--	--	--	--	--	--	--
Common Snipe	1	--	--	--	--	--	2	--	1	3	1	14
American Woodcock	--	--	--	1	4	--	1	--	--	1	--	1
Bonaparte's Gull	--	--	--	--	--	--	--	--	1	--	--	--
Ring-billed Gull	31	--	--	--	--	--	24	--	35	26	--	4
Herring Gull	3	--	--	--	--	--	6	--	--	--	--	--

	Memp	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Common Tern	--	--	--	--	--	--	--	--	6	--	--	4
Forster's Tern	--	--	--	--	--	--	5	--	1	--	--	4
Rock Dove	1	72	21	11	131	60	14	12	133	201	24	67
Mourning Dove	26	138	28	84	341	108	60	44	105	518	92	153
Black-billed Cuckoo	--	--	--	--	--	--	1	--	--	2	--	--
Yellow-billed Cuckoo	2	8	1	12	66	17	3	2	7	12	--	2
Common Barn-Owl	--	--	1	--	--	--	2	--	1	--	--	1
Eastern Screech-Owl	1	1	--	1	2	1	8	--	--	5	--	5
Great Horned Owl	--	--	--	4	3	1	4	--	4	5	--	1
Barred Owl	5	--	3	6	17	--	12	--	3	4	--	--
N. Saw-whet Owl	--	--	--	--	--	--	--	--	--	--	--	1
Common Nighthawk	5	1	3	12	25	18	23	2	19	7	--	6
Chuck-wills-widow	4	2	2	7	4	15	15	--	2	14	--	4
Whip-poor-will	1	--	2	2	39	--	10	--	--	1	--	12
Chimney Swift	39	66	135	53	526	172	87	63	562	519	118	312
Ruby-thr. Hummingbird	36	3	3	13	44	6	5	--	16	12	--	4
Belted Kingfisher	2	2	1	8	23	2	5	--	5	30	6	13
Red-headed Woodpecker	29	1	1	8	6	3	3	3	5	1	--	1
Red-bellied Woodpecker	52	20	18	43	114	22	11	13	31	64	19	29
Yellow-bel. Sapsucker	2	2	--	--	--	3	2	--	3	--	--	--
Downy Woodpecker	19	11	11	32	69	12	6	8	18	34	12	17
Hairy Woodpecker	1	1	3	6	9	5	2	1	--	5	4	3
Northern Flicker	16	6	3	5	42	16	2	5	16	52	23	38
Pileated Woodpecker	12	5	4	13	40	3	1	1	10	24	9	11
Olive-sided Flycatcher	--	--	--	--	--	--	--	--	1	--	--	--
Eastern Wood-Pewee	23	18	8	35	107	8	3	--	8	5	3	1
Acadian Flycatcher	35	7	4	32	63	--	--	--	9	5	--	1
Willow Flycatcher	1	--	--	--	7	--	--	--	--	--	--	--
Least Flycatcher	--	--	--	2	--	--	--	--	--	--	--	--
Eastern Phoebe	1	16	6	20	19	10	15	2	8	21	6	23
Great Cr. Flycatcher	31	22	11	29	67	10	13	4	11	24	11	8
Eastern Kingbird	37	40	14	37	149	82	24	9	14	40	25	23
Scissor-t. Flycatcher	--	--	--	--	--	1	--	--	--	--	--	--
Horned Lark	24	3	--	--	--	--	--	--	--	1	--	1
Purple Martin	32	49	14	42	115	123	15	18	69	60	7	141
Tree Swallow	18	2	--	18	22	--	--	--	15	4	4	51
N. Rough-winged Swallow	22	19	14	79	127	22	14	18	39	77	42	217
Bank Swallow	--	--	--	30	15	--	2	--	5	2	--	2
Cliff Swallow	--	6	102	4	1601	--	--	16	38	--	--	1
Barn Swallow	107	115	16	51	295	240	52	6	75	203	127	287
Blue Jay	52	27	29	90	197	64	79	46	76	325	99	207
American Crow	16	65	29	40	231	50	47	26	101	281	134	165
Fish Crow	6	--	--	--	--	--	--	--	--	--	--	--
Common Raven	--	--	--	--	--	--	--	--	--	--	--	6
Carolina Chickadee	60	7	47	35	110	34	22	7	45	172	33	62
Tufted Titmouse	139	17	32	63	160	34	29	18	57	155	41	62
Red-breasted Nuthatch	--	--	--	--	--	--	--	--	--	--	--	1
White-breasted Nuthatch	2	4	6	7	26	--	1	5	11	10	7	14
Brown-headed Nuthatch	--	--	--	--	--	--	--	--	6	--	--	--
Brown Creeper	--	--	--	--	--	--	--	--	--	1	--	--
Carolina Wren	49	3	13	42	99	10	5	7	39	168	53	62
Bewick's Wren	--	--	--	5	1	--	2	--	--	--	--	--
House Wren	--	--	7	1	16	9	6	--	--	10	9	9
Winter Wren	--	--	--	--	--	--	--	--	--	--	--	1
Sedge Wren	--	--	--	--	1	--	--	--	--	--	--	--
Marsh Wren	--	--	--	2	--	--	--	--	--	--	--	--
Golden-crowned Kinglet	--	--	4	--	--	--	--	--	--	1	--	2
Ruby-crowned Kinglet	--	--	1	--	--	--	1	--	34	53	2	17
Blue-g. Gnatcatcher	111	23	5	66	86	4	--	6	161	88	14	30
Eastern Bluebird	13	60	17	40	83	51	55	34	30	61	52	53
Veery	1	5	--	2	6	--	--	--	1	2	--	--
Gray-cheeked Thrush	9	3	1	4	7	--	--	--	1	1	--	--
Swainson's Thrush	60	13	6	20	156	3	--	--	2	26	2	--
Hermit Thrush	--	1	--	--	--	--	--	--	--	--	--	--
Wood Thrush	41	11	13	21	63	9	7	--	27	66	11	45
American Robin	76	45	71	66	397	210	49	83	249	629	161	532
Gray Catbird	10	20	10	37	38	22	15	4	11	49	6	18
Northern Mockingbird	31	54	21	30	209	122	23	27	35	142	53	83
Brown Thrasher	15	32	8	31	96	50	34	8	24	65	31	25
Water Pipit	--	--	--	--	--	--	2	--	--	10	15	2

	Memp	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Cedar Waxwing	71	--	2	15	102	--	7	4	53	153	56	29
Loggerhead Shrike	6	9	1	8	47	3	3	--	3	--	--	1
European Starling	200	110	95	77	589	400	119	83	675	894	432	859
White-eyed Vireo	92	11	18	55	105	7	12	1	30	68	14	16
Solitary Vireo	--	--	1	1	2	--	--	--	--	7	--	15
Yellow-throated Vireo	11	7	1	11	9	--	3	3	36	15	4	4
Warbling Vireo	9	--	3	12	17	--	2	--	--	--	1	2
Philadelphia Vireo	1	--	--	3	--	--	1	--	--	--	1	--
Red-eyed Vireo	69	18	12	54	112	5	6	7	81	194	15	75
Blue-winged Warbler	--	8	1	35	24	--	3	--	3	5	1	2
Golden-winged Warbler	--	1	--	--	2	--	4	--	--	1	--	1
Tennessee Warbler	107	6	47	126	86	5	4	3	26	101	1	3
Orange-crowned Warbler	--	--	--	--	--	--	--	--	--	1	--	--
Nashville Warbler	4	--	--	14	6	1	2	--	1	7	--	--
Northern Parula	92	9	--	31	16	--	1	--	1	4	2	13
Yellow Warbler	5	5	12	67	51	2	6	--	27	37	12	42
Chestnut-sided Warbler	2	6	1	11	12	2	2	--	35	13	7	21
Magnolia Warbler	--	12	1	4	18	3	3	--	6	5	1	--
Cape May Warbler	--	--	1	3	2	--	2	6	15	17	4	5
Black-thr. Blue Warbler	--	--	--	--	--	--	--	--	--	1	--	15
Yellow-rumped Warbler	31	--	25	22	5	5	37	16	47	211	70	140
Black-thr. Green Warbler	3	2	2	15	5	--	2	--	3	43	2	20
Blackburnian Warbler	--	3	1	3	3	--	6	--	5	9	--	2
Yellow-throated Warbler	2	8	2	12	38	1	2	--	22	4	--	7
Pine Warbler	4	5	2	--	3	1	1	--	6	3	1	3
Prairie Warbler	--	13	13	59	32	2	18	1	3	26	--	1
Palm Warbler	14	2	--	4	11	1	5	3	15	5	4	7
Bay-breasted Warbler	1	7	1	15	22	2	6	--	8	12	--	--
Blackpoll Warbler	--	2	2	7	52	1	6	2	9	11	--	1
Cerulean Warbler	15	3	--	35	8	--	2	--	3	13	--	3
Black & white Warbler	4	3	2	16	9	2	7	--	9	32	1	26
American Redstart	18	--	--	7	15	--	--	--	24	11	2	1
Prothonotary Warbler	48	4	10	24	36	2	4	--	13	7	1	2
Worm-eating Warbler	3	1	--	13	14	--	4	--	5	7	--	9
Swainson's Warbler	7	--	--	--	--	--	1	--	--	--	--	1
Ovenbird	--	4	2	19	12	--	--	--	5	30	4	57
Northern Waterthrush	2	--	--	10	2	--	3	--	1	3	1	3
Louisiana Waterthrush	5	9	4	19	16	--	2	--	3	11	--	11
Kentucky Warbler	37	9	7	45	49	--	5	--	14	20	1	7
Connecticut Warbler	--	--	--	1	--	--	--	--	--	--	--	--
Mourning Warbler	--	--	--	--	--	--	1	--	--	--	--	--
Common Yellowthroat	61	53	12	112	208	27	20	4	30	126	44	24
Hooded Warbler	19	2	1	14	21	1	--	--	11	29	4	36
Wilson's Warbler	--	--	--	1	1	--	--	--	--	--	--	--
Canada Warbler	--	2	--	1	8	2	1	--	2	--	--	--
Yellow-breasted Chat	9	17	17	65	83	14	5	--	10	19	8	8
Summer Tanager	70	13	6	36	85	7	18	1	13	18	2	1
Scarlet Tanager	8	8	1	48	32	--	2	--	14	49	7	23
Northern Cardinal	144	66	88	86	533	97	75	45	109	436	148	222
Rose-breasted Grosbeak	25	5	9	25	16	--	5	5	18	48	1	16
Blue Grosbeak	6	18	--	18	42	7	7	4	5	6	1	4
Indigo Bunting	317	135	38	200	611	112	20	8	70	117	27	16
Painted Bunting	4	--	--	--	--	--	--	--	--	--	--	--
Dickcissel	25	6	20	11	6	2	--	--	--	--	--	--
Rufous-sided Towhee	25	33	38	36	193	41	30	20	31	158	39	68
Chipping Sparrow	3	7	10	20	53	7	18	16	45	26	7	27
Field Sparrow	4	76	6	41	162	32	16	3	75	140	53	26
Vesper Sparrow	--	--	--	--	--	--	--	--	--	1	--	--
Lark Sparrow	--	--	--	--	--	2	1	--	--	--	--	--
Savannah Sparrow	9	1	--	--	6	--	1	3	10	16	6	29
Grasshopper Sparrow	--	1	--	--	8	--	3	--	8	13	5	5
LeConte's Sparrow	--	--	--	--	--	--	--	--	--	1	--	--
Song Sparrow	--	--	--	--	42	6	5	5	54	267	100	320
Lincoln's Sparrow	8	--	--	--	1	--	--	--	--	--	--	--
Swamp Sparrow	--	1	--	7	--	--	--	--	11	3	--	3
White-throated Sparrow	20	1	11	26	2	--	10	24	43	202	26	104
White-crowned Sparrow	5	--	2	10	--	--	6	--	2	16	15	38
Dark-eyed Junco	3	--	--	--	--	--	--	--	--	--	--	19
Bobolink	--	22	9	3	15	--	--	3	4	2	--	--
Red-winged Blackbird	270	179	56	207	636	1000	69	16	69	284	135	172

	Memp	Lawr	Clar	Colu	Nash	Murf	Leba	High	Chat	Knox	Gree	Eliz
Eastern Meadowlark	104	135	46	73	327	162	66	40	51	191	141	168
Rusty Blackbird	--	--	--	--	--	--	1	--	2	--	4	--
Common Grackle	130	154	59	81	669	300	156	81	76	722	341	872
Brown-headed Cowbird	178	57	39	93	233	47	69	23	38	111	45	82
Orchard Oriole	50	42	4	62	113	12	7	5	10	20	9	4
Northern Oriole	33	--	--	17	9	1	4	--	15	10	7	12
Purple Finch	--	--	--	--	--	4	5	--	--	4	--	--
House Finch	--	--	--	--	2	--	11	--	7	29	13	19
Pine Siskin	--	--	5	--	--	--	--	--	12	--	--	63
American Goldfinch	--	35	82	72	121	34	36	18	162	190	35	346
House Sparrow	150	117	83	30	248	75	58	41	330	161	34	85
Total Species	135	111	103	144	149	97	140	73	151	146	105	149

Sarah Greene, Dewey Griffin, Mary Anne & Tom Guschke (compilers—113 Taggart Ave., Nashville 37205), Bessie Hagan, Robert M. Hatcher, Ann Houk, Lillian Hunt, Louise Jackson, Edgar Jolly, Carol Knauth, Lee F. Kramer, Adene Lyon, John & Joseph McLaughlin, Portia McMillan, Margaret Mann, Rocky Milburn, Pauline Miller, Richard Newton, Marge & Oscar Patrick, Donald Perry, Larry Raye, Betty Richards, Alice Savage, Pat Stallings, Barbara H. & Stephen J. Stedman, Helen Sterling, Ellen Stringer, Ann T. Tarbell, David F. Vogt, Kenneth Walkup, Cliff Whitehead, Virginia Workamn. Also reported—*Accipiter* sp.-1, peep sp.-17.

MURFREESBORO—11-12 May; overcast to clear; hot & dry; Anne L. Hettish (compiler—1018 Lawndale Dr., Murfreesboro 37130). The Scissor-tailed Flycatcher has returned several consecutive years.

LEBANON—27-28 April; Wilson County; rain, then clearing; 10 observers—Earline C. Berry, Fred Detlefsen, Clark Jenkins, Donald C. Jenkins, M. R. McMillan, Ruth V. McMillan (compiler—Rt. 2, Box 141, Lacassas 37085), Margaret Partee, Ray Pope, Alice Savage, Grace Speck.

HIGHLAND RIM—1800 on 26 April to 1800 on 27 April; partly cloudy, with isolated showers; 13 observers—Carol Barr, Marguerite Hernandez, Agnes Marcrom, Nicky Medley, Phillip Medley (compiler—Rt. 2, Box 173-B, Hillsboro 37342), Anna Mary Parker, Chloe & Howell Peebles, John Wilson, Doub Wimberly, Truman Winnet, Grady & Willa York. Brewer's Blackbird deleted.

LEBANON—27-28 April; Wilson County; rain, then clearing; 10 observers—Earline C. Berry, Fred Detlefsen, Clark Jenkins, Donald C. Jenkins, M. R. McMillan, Ruth V. McMillan (compiler—Rt. 2, Box 141, Lascassas 37085), Margaret Partee, Ray Pope, Alice Savage, Grace Speck.

CHATTANOOGA—27-28 April; Nickajack Dam to hiwassee R.; partly cloudy, with afternoon thundershowers; temp. 61-80°F; 17 observers—Carl Adams, Claire & Del Blum, Linda Cartwright, Jack & Linda Doyle, Ken & Lil Dubke, Gertrude Fleming, Al Jenkins, Barbara & Mike McMahon, Johnny Parks (compiler—1610 East 17th St., Chattanooga 37404), Janet Phillips, Peter Robinson, Pam & Robin Rudd.

KNOXVILLE—28 April; Knox County; overcast to partly cloudy; temp. 59-80°F; 27 observers in 16 parties—Betty Adams, Frank Bills, Sharon Bostick, Howard Chitwood, Linda Fowler, Louise Fuller, Brice Gilmer, Maurice Grigsby, Paul Hartigan (compiler—200 Hermitage Rd., Knoxville 37920), Audrey Hoff, Joe Howell, Susan Hoyle, Hal Hubbs, Jon Koella, Beth Lacy, Bettie & Jim Mason, Charles Nicholson, Holly Overton, J. B.

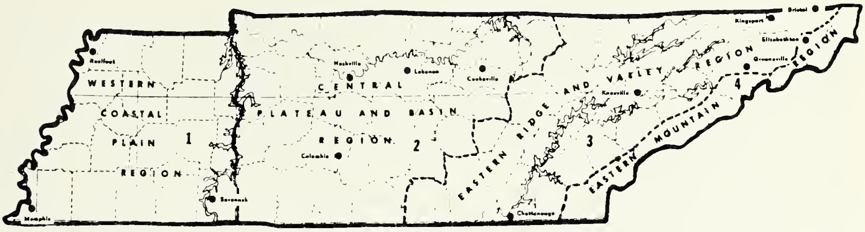
Owen, Truett Patterson, Don Powers, Mark Reeves, Ken & Mable Sanders, Boyd Sharp, Jim Tanner. The Le Conte's Sparrow was a well described individual seen by Joe Howell and J. B. Owen. Also reported—*Buteo* sp.-2, *Empidonax* sp.-1.

GREENEVILLE—28 April; 21 observers; Ben Britton (compiler—Rt. 1, Box 348, Greeneville 37743).

ELIZABETHTON—27 April; mostly within 25 mile radius of Elizabethton; 0330 to 2130; cloudy, with light intermittent rain; temp. 53-66°F; 20 observers in 8 parties; Glen Eller (compiler—Rt. 9, Box 1340, Elizabethton 37643). The N. Saw-whet Owl was heard calling on Roan Mountain.

DAVE MATHENSON JR.
8/82

THE SEASON


WESTERN COASTAL PLAIN REGION
1
CENTRAL PLATEAU AND BASIN REGION
2
EASTERN RIDGE AND VALLEY REGION
3
EASTERN MOUNTAIN REGION
4
Reelfoot
Memphis
Savannah
Nashville
Lebanon
Cookeville
Columbia
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville

SPRING MIGRATION: 1 MARCH - 30 MAY 1985

The weather this spring was generally warm and very dry. Early March and early April were cooler than average, but temperatures during the rest of the season were warm. Most regions reported lower than average rainfall, and in some areas, the season was among the driest on record. This probably produced favorable conditions for northward migrating birds, although, as usual, observers' characterizations of the season are mixed.

A variety of species was reported on earlier than average dates, and a few species were reported on record early dates. Among the rare or out of place species reported are Sandhill Cranes near the Mississippi River, a Yellow Rail near Columbia, a Glossy Ibis near Gallatin, and a Harris' Sparrow at the Duck River Unit. Some of the northern species which invaded last winter stayed into this season. These included a White-winged Crossbill, present at Chattanooga until mid-April, and Oldsquaws on Chickamauga Lake in mid-March. Pine Siskins, which increased in numbers late in the winter, stayed into may in Middle and East Tennessee. Some waterbirds were present in unusually high numbers. These included Red-breasted Mergansers in Middle Tennessee, and Double-crested Cormorants in West and Middle Tennessee. The recent increase in cormorant numbers is undoubtably related to the 40 percent a year population increase recorded at Great Lakes colonies (Ludwig, *Jack Pine Warbler* 62:91-102, 1984). There were also reports of interesting breeding records, such as a territorial Saw-whet Owl on Roan Mountain, and the continued expansion of the Brown-headed Nuthatch, this time to Cleveland.—CHARLES P. NICHOLSON.

Abbreviations used in these reports include EOP - End of Period; ers -earliest report of season; lrs - latest report of season.

WESTERN COASTAL PLAIN REGION—Migration was slow and late. Summer residents were observed in good numbers. Unusual sightings included an early date for the American Bittern, a pair of Sandhill Cranes in Lauderdale County, and a pair of nesting Black-necked Stilts at the Ensley Sewage Lagoons near Memphis.

Grebe—Tern: Horned Grebe: 23 Apr (50+) PLS, (3) BRF (DWB). Double-crested Cormorant: 14 Apr (350) Mud Lake, Shelby Co. (BBC, LCC). American Bittern: 4 Mar (1) MEM (Charlotte Joshlin, Martha G. Waldron); 19

Mar (1) Moss Island, DYC (RPF); 9 May (1) REL, OBC (SJS, RCS). Least Bittern: 9 May (1) REL, LKC (SJS, RCS). Yellow-crowned Night-Heron: 30 Mar (10 birds, 6 nests under construction) MEM (N. P. McWhirter, JRW). Greater White-fronted Goose: 14 Mar (1) DYC (SJS, RCS). Red-breasted Merganser: 11 Mar (1) PEF (HBD, DP); 28 May (13) PLS (DWB). Ruddy Duck: 12 May (12) Robco Lake, MEM (BBC, LCC). Mississippi Kite: 30 Mar (1) MEM (DAD); 19 Apr (1) DYC (RPF); 18 May (3) ESL (JRW); 29 May (4) SFP (Carolyn H. Bullock, Helen B. Dinkelspiel, Sue C. Ferguson, Noreen M. Smith). Sharp-shinned Hawk: 28 May (1) PLS (DWB). Cooper's Hawk: 9 Mar (1) PEF (JRW). "Harlan's" Hawk: 23 Mar (1) TN/MS line near MEM (BBC, LCC). King Rail: 9 May (1) DYC (SJS, RCS). Common Moorhen: 9 May (1) REL, OBC (SJS, RCS). **SANDHILL CRANE**: 18 Apr (2) FPP (RPF); third West Tennessee and first county record, details published in *Migrant* (56: 45-46, 1985). Lesser Golden-Plover: 9 Mar (29) ESL (BBC, LCC); 16 Mar (12) PEF (JRW). Western Sandpiper: 9 May (1) ESL (JRW); 17 May (1) REL, OBC (DWB). White-rumped Sandpiper: 9 May (2) ESL (SJS, RCS); 18 May (5), 30 May (47) ESL (JRW). Stilt Sandpiper: 10 Mar (1) ESL (JRW). Common Snipe: 10 Mar (187) ESL (JRW). Black-necked Stilt: 11 Apr (1), 18 May (1), 30 May (2, nest) ESL (JRW). Common Tern: 23 Apr (2) PLS (DWB).

Owl—Finch: Eastern Screech-Owl: 28 Apr (6) PRI (JRW). Olive-sided Flycatcher: 7 May (1) FPP (SJS, RCS). Brown Creeper: 10 May (1) REL, LKC (RPF). House Wren: 3 Apr (1) Toone, Hardeman Co. (RPF). Sedge Wren: 30 Apr (3) Mud Island, Shelby Co. (BBC). Marsh Wren: 28 May (2) BRF (DWB). Gray-cheeked Thrush: 12 Apr (1) MEM (DAD). American Tree Sparrow: 15 Mar (3) DYC (SJS, RCS). Grasshopper Sparrow: 23 Apr (1) PLS (DWB). Lincoln's Sparrow: 31 Mar (1), 27 Apr (3) ESL (JRW); 28 Apr (6-8) PRI (JRW); 9 May (1) Golddust, LDC (SJS, RCS). Western Meadowlark: 5 Mar (1) PEF (JRW). Rusty Blackbird: 9 Mar (250) PEF (JRW). House Finch: 6 May (1 male) MEM (Jo L. Levy).

Locations: BRF - Britton Ford, Henry Co.; DYC - Dyer Co.; ESL - Ensley Sewage Lagoons, Shelby Co.; FPP - Fort Pillow State Park, Lauderdale Co.; LDC - Lauderdale Co.; LKC - Lake Co.; MEM - Memphis; OBC - Obion Co.; PEF - Shelby Co. Penal Farm; PLS - Paris Landing State Park, Henry Co.; PRI - President's Island, Shelby Co.; SFP - Shelby Forest State Park, Shelby Co.

MARTHA G. WALDRON, 1626 Yorkshire Drive, Memphis, TN 38119.

CENTRAL PLATEAU AND BASIN REGION—In contrast to the cool, wet spring of 1984, the season this year was warm and dry. These weather conditions resulted in a generally less exciting spring for regional field workers, but probably offered migrants a less strenuous and safer passage northward. With rainfall in March over 3 inches below normal in Nashville and that for April and May each deficient about 1.5 inches, there were far fewer adverse weather patterns to bring migrating species down than had been true the previous year. In addition, the balmy weather of April caused foliage to develop more rapidly that it had a year ago, making woodland passerines, which everyone felt to be low, more difficult to detect than a year earlier, at least during the early portion of the migration.

Of the more than 60 field workers who submitted records for this season, 9 offered an evaluation of it, with a considerable variety of judgment evident among them. Ellen Walker and Annie Heilman (Clarksville) and Lillian Hunt (Nashville) felt the season to be "slow" and "below average." Ruth McMillan (Wilson Co.) commented about the lateness of some species, while Robbie Hassler (Byrdstown, Pickett Co.) regarded the season as a "normal" one. Paul Crawford (Gallatin) labeled it "slightly above average," Richard Simmers (Cookeville) and Damien Simbeck (Lawrenceburg) felt it to have been "fairly good," and Donald Blunk (Dover, Stewart Co.), rounding out the spectrum of opinion, called it "excellent." A synthesis of these evaluations would obviously result in the conclusion that a fairly normal spring season had transpired. It is worth noting that at least 9 unprecedentedly early arrival records were established this spring, while no record late dates were set. Probably a normal number of rarities occurred, with the Crawford's ibis being the most unexpected. Unexpectedly large concentrations were noted for a few species, especially among the shorebirds, but generally this was not true for most species seen and reported during the season. In summarizing the Spring 1985 season, perhaps we can do no more than concur with one previous analyst of the spring migration: the "incredible spectacle of the movable avifauna" was simply a normal, if incredible, spectacle once again.

Loon—Ibis: Common Loon: 28-30 May (1 in breeding plumage) RDL (MLJ, *et al.*), lrs. Horned Grebe: 4 May (1) GSP (CGD), lrs. Double-crested Cormorant: 27 Apr (192) DRU (SJS, BHS); 27-28 Apr (80+) WLC (*fide* RVM); period of peak migration denoted. American Bittern: 24 Mar - 27 Apr (1 seen and occasionally heard) MOP (SJS, m.ob.), only report. Great Egret: 1 Apr (2) LOR (Andy J. Augustine), ers; 8 other reports (6 Apr - EOP) from 6 locations. Cattle Egret: 4 Apr (2) I-40 at Rt. 13, Humphreys Co. (CGD), ers; 4 other reports. Snowy Egret: 23 Apr (1) BAR (DWB), only report. Green-backed Heron: 30 Mar (2) LWC (GNP, DJS, MDW), ties LWC early spring date. **GLOSSY IBIS:** 3 May (1 ad in breeding plumage) LWP (DTC, JPC), excellent details submitted, first well-documented NA record.

Swan—Merganser: Tundra Swan: 10 Mar (1 imm) CCNWR (DWB), only report. Greater White-fronted Goose: 10-30 Mar (2) Laurel Hill L., LWC (Lloyd W. Clayton, Helen M. Clayton, *et al.*); 13 and 23 Mar (2) MOP (SJS, WNJ, O. Bedford Lochridge, Anne R. Lochridge). Blue-winged Teal: 29 May (1 male with Mallard female and chicks) MC (David F. Vogt), lrs. American Wigeon: 12 May (1 male) Cedar Hill Park, DVC (M. Patricia Stallings), lrs. Gadwall: 4 May (1 female) MOP (JRW, TOS), lrs. Canvasback: 12 Mar (50+) Rushing Creek, LBL (DWB), lrs (also large number). Redhead: 2 Mar (25) CCNWR (DWB); 3 Mar (8) RDL (CGD, *et al.*); 3 Mar (12) DRU (SJS, BHS, ARH); only reports. Common Merganser: 16 Mar (2) DRU (CGD, *et al.*); 20 Mar (1) Hermitage Landing, PPL (MLM); 19 May (1 male) Woods Reservoir, Franklin Co. (SJS, BHS); only reports with the last being late. Red-breasted Merganser: 16-18 Mar (400-500) DRU (CGD, RCS, Ruth Griffin, Dewey Griffin); 23 May (200) Anchor Dr., Old Hickory L. (Lee F. Kramer); 3 May (4) PPL Dam (M. Rebecca Hammett, Stephen R. Satterfield), lrs; period of peak migration indicated by first two sightings.

Osprey—Merlin: Osprey: widely reported 11 Apr - 15 May. Bald Eagle: 23 Mar (1 imm) DRU (CGD), last report of an imm (but see Summer 1985 report); adults seen later might have been or were breeders. Northern Harrier: 5 May (1) MOP (JRW, Anne L. Hettish, TOS), lrs. Sharp-shinned Hawk: 8 reports 9 Mar - 4 May (almost identical to data for Spring 1984).

Cooper's Hawk: 8 reports 3 Mar - 12 May (fewer than in Spring 1984). Broad-winged Hawk: 2 Apr (1) Bard's Lake, LBL (DWB), ers. Rough-legged Hawk: 9 Mar (1) CCNWR (CGD, *et al.*), only report. Merlin: 26 Mar (1) MC (R. J. Milburn, Jr.); 20 Apr (1) EWP (PBH); only reports.

Turkey—Crane: Wild Turkey: 4 Mar (8) LBL (DWB); 23 Mar (17) Shacklett, CHC (CGD, *et al.*); 6 Apr (1) DRU (SJS, BHS); 20 Apr (1) DYD (CGD); 2 May (1) LEF (SJS); more sightings from more areas than in most recent years. **YELLOW RAIL:** 4 May (1 seen) MOP (JRW, DWM, MCT); although the bird did not call, the white wing-patches were not seen, and the habitat was atypical of that used by the species, this sighting was still well-documented; details should be published. King Rail: 6 May (2) Goose Pond, Grundy Co. (PBH, CPN, Linda Pearsall); 26 May (1) 3.5 km upstream from Bartlett Bridge on Buffalo R. (WNJ); 27 May (1 injured) LAW (*fide* DJS); encouraging a number of sightings. Virginia Rail: 23 May (1 road kill) Five Points, LWC (MDW); usual sightings at MOP reported. Sora: 23 Mar (1) MOP (WNJ), ers; 27 May (1) LWC (DJS, Michael A. Beuerlein), lrs. Common Moorhen: 3, 4, and 11 May (1) GSP (DTC, JPC, CGD, Bessie Hagan, William Jones), only report. Sandhill Crane: 4 Mar (43) BAH (RWS); 4 Mar (98+) BYR (Francis E. Baker); 7 Mar (68+) BAH (RWS); 9 Mar (5) NW of Lebanon, WLC (RVM, Mac R. McMillan), 10th NA record; 16 Mar (63) BYR (Robbie C. Hassler, J. David Hassler); in conjunction with several late-Feb records (see Winter 1984-85 report), usual well-articulated migration denoted.

Golden-Plover—Tern: Lesser Golden-Plover: 16 Mar (10) DRU (BHS, Anne Nixon, m.ob.), ers; 24 Mar (4) LOR (DJS); 30 Mar (14) 16 km W of LAW (GNP, MDW, DJS, *et al.*); rarely reported in LWC. Semipalmated Plover: 15 Apr (1) 10 km S of Franklin, WMC (SJS), new NA early spring date; 11 May (29) GSP (JPC), largest number reported. Lesser Yellowlegs: 6 May (470) DRU (CGD, largest number reported. Willet: 21 Apr (4) Cheatham Dam (CGD, m.ob.); 27 Apr (10) DRU (SJS, BHS); 1 May (4) OHD (SJS); usual brief period of migration denoted. Upland Sandpiper: 26 Mar (1) Old Hillsboro Rd., WMC (BHS), new NA early spring date; 24 Apr (2) BAR (DWB), only other report. Semipalmated Sandpiper: 23 May (100+) GRP & LWP (JPC, SJS), largest number reported. Western Sandpiper: 10 May (1) DRU (SJS); 13 May (14) GSP (DTC, JPC); 23 May (2) LWP (SJS, JPC), only reports. White-rumped Sandpiper: 11 May (5) GSP (DTC, JPC), ers; 20 May (10) 10 km S of Franklin, WMC (SJS), few WMC records; 23 May (60) GRP & LWP (JPC, SJS), alltime NA high count; 30 May (4) GRP & LWP (SJS), lrs. Baird's Sandpiper: 6 Apr (3) DRU (SJS, BHS), only report, early. Dunlin: 3 May (1) GSP (JPC, DTC); 10 May (2) DRU (SJS); only reports. Stilt Sandpiper: 13 May (10) LWP (DTC, JPC), high number in spring. Dowitcher sp.: 3 May (20) DRU (MTC, DWM, Wallace Todd), highest number reported. Wilson's Phalarope: 27 Apr (1) DRU (SJS, BHS); 30 May (1) LWP (JPC, DTC); only reports. Bonaparte's Gull: 16 May (80+) DRU (SJS, m.ob.), high number; 5 Apr (1) FRR (BHS), few WMC records. Ring-billed Gull: 11 May (18) FRR (SJS), high number in WMC; 23 May (5) OHD (SJS), lrs. Forster's Tern: 30 Apr (2) Cave Creek Park, PUC (RWS, Amy Johnson, Sam Coward, Kathryn Coward, Roy Sullivan, M. Lassiter), few PUC records.

Cuckoo—Pipit: Black-billed Cuckoo: 14 Apr (1 seen and heard) Murfreesboro (TJW, David McCarroll), new NA early spring date; reported as more common than usual in Stewart Co. (DWB). Yellow-billed Cuckoo: 3 Apr (1 calling) NASH (Sue M. Bell), new NA early spring date. Common Barn-Owl: reported only from WLC (Fred O. Detlefsen, *fide* RVM) and MTC (AHH, EJW). Great Horned Owl: 11 Mar (nest with 2 chicks) EWP (PBH). **NORTHERN SAW-WHET OWL:** 13 May (1 drinking from bird bath after dark) NASH (Robert Hershey, Susanna Hershey, *fide* PBH), 6th NA record. Common Nighthawk: 4 Mar (1 seen and heard) NASH (Matt T. Hunter), new NA early spring date. Whip-poor-will: 28 Mar (1 calling) RDL (TJW); 28 Mar (1 calling) LEF (BHS); ers. Olive-sided Flycatcher: 28 Apr (1) CHC (CGD); 30 May (1) Rutherford Co. (RVM), lrs. Least Flycatcher: 29 Apr (1 calling) RDL (SJS, LVH); 3 May (1) DOV (DWB); 4 May (2) MOP (CPN, BBC, TOS). Yellow-bellied Flycatcher: as occurred last spring, several reports, without substantive documentation, including a detailed description of song, were received; observers are urged to record this species with care and to report it with complete documentation. Tree Swallow: 3 Mar (1) DRU (BHS, SJS, ARH), ers; 10 Mar (6) CCNWR (EJW), also early. Northern Rough-winged Swallow: 14 Mar (1) LOR (DJS), ers; also earliest ever LWC. Blue Jay: 16 Mar (1 displaying almost complete albinism) DRU (CGD, m.ob.). House Wren: 11 Apr (1) Taggart Dr., NASH (Mary Anne Guschke), ers. Sedge Wren: 1 May (3) CCNWR (DWB); 11 May (1) DYD (CGD); only reports. Wood Thrush: 5 Apr (1) BAH (RWS), ers. Water Pipit: 27 Apr (2) WLC (RVM, Alice Savage), lrs.

Vireo—Siskin: White-eyed Vireo: 1 Apr (1) RDL (LVH), ers. Warbling Vireo: 14 Apr (1) DRU (SJS), ers. Philadelphia Vireo: scarcer than usual this spring. Red-eyed Vireo: 11 Apr (1) Model Fire Tower, LBL (DWB), ers. Golden-winged Warbler: 9 reports 20 Apr - 12 May. Tennessee Warbler: 24 May (1) BAH (RWS), lrs. Orange-crowned Warbler: 4 reports 20 Apr - 4 May. Northern Parula: 31 Mar (1 seen and heard) LEF (BHS, SJS), new NA early spring date. Chestnut-sided Warbler: 19 Apr (1) RDL (LVH), ers. Blackpoll Warbler: 30 May (1) NASH (MLM), lrs. Cerulean Warbler: 29 Mar (2 singing) LEF (BHS), new NA early spring date. Worm-eating Warbler: 10 Apr (1) RDL (LVH), ers. Connecticut Warbler: 20 Apr (1) Ft. Negley, DVC (CGD), ers. Common Yellowthroat: 5 Apr (1) LEF (SJS), ers. Rose-breasted Grosbeak: 27 May (1) BAH (RWS), lrs. Chipping Sparrow: 6 Mar (1) CLA (EJW), ers. Vesper Sparrow: 2 May (1) MTC (AHH), lrs. Le Conte's Sparrow: 3 Mar (1) DRU (SJS, BHS, ARH), only report. White-throated Sparrow: to EOP (1) Gallatin, Sumner Co. (JPC, DTC), lrs (but see Summer 1985 report). **HARRIS' SPARROW:** 16 Mar (1) DRU (BHS, LVH, Victoria Janson, m.ob.), only report of season and first in region since Winter 1981-82. Dark-eyed Junco: 30 Apr (1) DOV (DWB), lrs. Rusty Blackbird: 16 Apr (1) near LEF (BHS), lrs. Orchard Oriole: 12 Apr (1) DOV (DWB), ers. Purple Finch: 25 Apr (2/1) CLA/NASH (EJW/Ann T. Tarbell), lrs. **RED CROSSBILL:** 16 Mar (20) Model Fire Tower, LBL (DWB), only report. Pine Siskin: 17 May (3) NASH (MLJ), lrs.

Corrigenda: *Migrant* 54:62, 1983: in entry for American Avocet change "4th spring" to "5th spring" record; 54:62, 1983: in entry for Least Tern change "5th" to "10th" NA record; 54:62, 1983: in entry for Willow Flycatcher delete the record for 30 Apr; 54:63, 1983: in entry for Rusty Blackbird add "NA" after "new"; 55:68, 1984: in entry for Horned Grebe change "24 May" to "24 Mar"; 55:69, 1984: in entry for Sandhill Crane change "3rd NA record" to "7th NA record"; 55:69, 1984: in entry for American Avocet change "5th NA spring record" to "6th NA spring record"; 55:71, 1984: in entry for Mourning Warbler change the second "DIC" to "DVC"; 55:71, 1984: in entry for White-throated Sparrow change "DOC" to "DOV"; 55:74, 1984: in discussion of banded Pine Siskins at KNX change "19 Mar" to "10 Mar"; 55:76, 1984: in "Observers" section add "OBL—O. Bedford Lochridge" and "RWS—Richard W. Simmers, Jr." in appropriate places.

Locations: BAH - Barnes Hollow, Putnam Co.; BAR - Barkley Waterfowl Management Unit, Stewart Co.; BYR - Byrdstown, Pickett Co.; CCNWR - Cross Creeks National Wildlife Refuge, Stewart Co.; CHC - Cheatham Co.; CLA - Clarksville, Montgomery Co.; DOV - Dover, Stewart Co.; DRU - Duck River Unit, Tennessee National Wildlife Refuge, Humphreys Co.; DVC - Davidson Co.; DYD - Dyson's Ditch, Cheatham Co.; EWP -Edwin Warner Park, Davidson Co.; FRR - Franklin Reservoir, Williamson Co.; GRP - Green's Pond, Sumner Co.; GSP - Gallatin Steam Plant, Sumner Co.; LAW - Lawrenceburg, Lawrence Co.; LBL - Land-Between-the-Lakes, Stewart Co.; LEF - Leiper's Fork, Williamson Co.; LOR - Loretto, Lawrence Co.; LWC - Lawrence Co.; LWP - Lewis Pond, Sumner Co.; MC - Metro Center, Davidson Co.; MOP - Monsanto Ponds, Maury Co.; MTC - Montgomery Co.; NA - Nashville Area (includes all of Davidson Co. and parts of 7 surrounding counties); NASH - Nashville; OHD - Old Hickory Dam, Davidson Co.; PPL - Percy Priest Lake (in Davidson, Wilson, and Rutherford Cos.); PUC - Putnam Co.; RDL - Radnor Lake State Natural Area, Davidson Co.; WLC - Wilson Co.; WMC - Williamson Co.

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EASTERN RIDGE AND VALLEY REGION—This reporting period was considered very dry throughout the region. In the Johnson City area Eller commented that one benefit of the drought was the many successful nests of Canada Geese. In the past they were usually washed away by the high swift flowing rivers.

At Knoxville early spring was fairly cool, which delayed the arrival of Purple Martins. Late March was warm with gnatcatchers and the early warblers arriving on schedule. Early April was cooler than average, delaying a few birds, then, after about the 11th of April, temperatures were near or above average. Many of the fairly late arriving migrants were earlier than average, and by the end of April, Red-eyed Vireos and Tennessee Warblers were present in numbers well above average. Knoxville's rainfall throughout the season was below average, with only 6 inches from March through May, 8 inches below normal and the driest in many years. They only recorded 2.4 inches of rainfall in May.

The combined rainfall at Chattanooga of just over 5 inches for March and April made the period the sixth driest on record. Temperature for May was near normal while precipitation was somewhat above average.

A good yellowlegs migration was recorded in the Johnson City area. Rick Knight reported a nice list of waterbirds in early March from Cherokee Lake, an area rarely reported on in these pages. Other than his observations, waterfowl seemed to have moved through with little comment being received.

The Kingston Steam Plant shorebird habitat continued to be poor. The ash pile where the Bank Swallows were found nesting in 1984 was leveled, but 30+ new nest holes were discovered elsewhere on the site.

Small numbers of Pine Siskins, along with Purple and House Finches lingered into the period. No Evening Grosbeaks were reported, while Red Crossbills were observed in the Catoosa Wildlife Management Area on 14 May, and the White-winged Crossbill remained at Chattanooga until 12 April. House Finches were documented nesting in Maryville, Cleveland and Chattanooga.

Loon—Duck: Common Loon: 7 Mar (6) CRL (RLK); 1 Mar - 1 Apr (6-19 irregular) CHL (KHD, LHD, RAR); last seen BOL 16 Apr (RLK); last report NRL 14 May (JCH). Pied-billed Grebe: 7 Mar (45) CRL (RLK); 1 Mar - 1 Apr (2-65) CHL (KHD, LHD). Horned Grebe: 7 Mar (130) CRL (RLK); 3-16 Mar (1-7) CHL (KHD, LHD, RAR). Double-crested Cormorant: 7 Mar (6) CRL (RLK); 7 Mar (1) WBL (LJF, DKF, WKJ); 9 Mar - 1 Apr (6-8 occasional) CHL (KHD, LHD); 4-7 Apr (1-3) BOL (RLK *et al.*); 27 Apr (2), 7 May (1) AUS (RLK *et al.*); 15 May (4) DOL (SJS). Great Blue Heron: 7 Mar (17) CRL (RLK). Great Egret: 6 Apr (5) SAB (KHD, LHD); 12 Apr - 7 May (2-3) AUS (RLK, RC); 30 Apr (2) HRA (KHD, LHD); 18 May (1) HRA (SJS); 22 May (1) Hawkins Co. (WKJ). Snowy Egret: 11 May (1) CHA (RAR). Little Blue Heron: 24 Apr, 2 May (1) WGC (RLK); 27 Apr (1) AUS (RLK, RC). Cattle Egret: 27 Apr (1) KNC (Morton Massey *fide* CPN); 18 May (1) COC (JAK); 20 May (1) SAB (KHD, LHD). Tundra Swan: 2 Mar (1) HRA (PCH, JDR, PHD *et al.*). Mute Swan: 9-20 Mar (2) CHL (GLF, KHD, LHD, RJH). Green-winged Teal: 9 Mar (4) HRA (KHD, LHD); 24 Mar (5) CHL (KHD, LHD). Amer. Black Duck: 3 Mar (6) HRA (KHD, LHD). Northern Pintail: 24 Mar (1) HRA (KHD, LHD). Blue-winged Teal: 25 Mar - 18 May (1+) WGC (LHTOS); 23 Mar - 1 Apr (7-45) CHL (KHD, LHD); 28 Apr - 16 May (1-5) CHA (RAR). Northern Shoveler: 2 Apr (2) JNC (RLK). Gadwall: max 9 Mar (115) CHL (KHD, LHD); 24 Mar (140) HRA (KHD, LHD); last 1 Apr (92) HRA (KHD, LHD). Amer. Wigeon: 7 Mar (4) CRL (RLK); 24 Mar (6) HRA (KHD, LHD). Canvasback: 1 Apr (1) CHL (KHD, LHD). Redhead: 2 Mar (2) JEC (JAK); 3 Mar (1) CHL (KHD, LHD); 7 Mar (25) CRL (RLK). Ring-necked Duck: 7 Mar (2) CRL (RLK); 3-24 Mar (12-150) CHL (KHD, LHD). Greater Scaup: 3-24 Mar (110-195) CHL (KHD, LHD). Lesser Scaup: 3 Mar -1 Apr (3-275) CHL (KHD, LHD). Scaup sp.: 7 Mar (280) CRL (RLK). Oldsquaw: 8-9 Mar (3) CHL (KHD, LHD, RAR, JTP). Common Goldeneye: 7 Mar (6) CRL (RLK). Bufflehead: 7 Mar (2) CRL (RLK). Hooded Merganser: 7 Mar (10) CRL (RLK); 24 Mar (5) HRA (KHD, LHD); 7 Apr (3) BOL (RLK). Common Merganser: 7 Mar (75+) WBL (LJF, DKF, WKJ); 9 Mar (1) CHL (KHD, LHD). Red-breasted Merganser: 7 Mar (4) CRL (RLK); 9 Mar (150) CHL (KHD, LHD, RAR); 7 Apr (3) BOL (RLK). Ruddy Duck: 3 Mar - 1 Apr (2-69) CHL (KHD, LHD, RAR).

Osprey—Tern: Osprey: 7 Mar (at least 2 pairs returned and refurbishing nests) WBL (LJF, DKF, WKJ); 2 Apr - 14 May (1+) WGC (LHTOS). Bald Eagle: last report 16 Mar (1) CHL (KHD, LHD). Northern Harrier: 12 May (1) KNC (ARH, RDH). Sharp-shinned Hawk: only 2 sightings JNC area (LHTOS). Cooper's Hawk: no reports JNC area (LHTOS). Red-shouldered Hawk: 6 active nests in CHA area (KHD, LHD, JDR). Amer. Kestrel: pair regular WHP (JAK). Ruffed Grouse: 18 May (1) Sharp's Ridge, Knoxville (JCH, Greg Lagerberg *et al.*) - does not regularly occur there in the city. King Rail: 9-16 May (1-2) CHA (PDR, AMJ, TJW, RAR, JTP). Virginia Rail: 7 May (1) AUS (RLK). Sora: 14, 27 Apr (1) AUS (RLK, RC); 11 Apr (1 dead on road) SAB (KHD). Amer. Coot: 26 May (2) KSP (KHD). Lesser

Golden-Plover: 24 Mar (1) HRA (KHD, LHD); 29 Mar (1) CHA (AMJ, Eugene M. Ryther). Semipalmated Plover: 18 May (4) HRA (SJS). Greater Yellowlegs: 23 Mar - 30 Apr (only 3 singles reported!) HRA (KHD, LHD); 31 Mar (3) SAB (KHD, LHD). Lesser Yellowlegs: 25 Mar (1) JEC (JAK); 18 May (3) HRA (SJS). Solitary Sandpiper: 18 May (2) COC (JAK); 18 May (3) HRA (SJS). Spotted Sandpiper: 18 May (10) COC (JAK); 26 May (1) KSP (KHD). Semipalmated Sandpiper: 2 May (13) CHA (RAR); 11 May (1) HRA (KHD, LHD). Least Sandpiper: 11 May (5) HRA (KHD, LHD); 18 May (1) HRA (SJS); 26 May (5) KSP (KHD). Pectoral Sandpiper: 24 Mar (140) HRA (KHD, LHD); 29 Mar (5) CHA (RAR); 31 Mar (106) SAB (KHD, LHD). Dunlin: 31 Mar (37) SAB (KHD, LHD); 27 Apr (2) AUS (RLK, RC) - seldom reported from this area. Common Snipe: 18 May (1) HRA (SJS). Laughing Gull: 11 May (5) KNX (ARH, Marc W. Armstrong). Bonaparte's Gull: 1 Apr (1) CHL (KHD, LHD); 4 Apr (22) BOL (RLK). Ring-billed Gull: 7 Mar (2000) CRL (RLK); 1 Apr (46) CHL (KHD, LHD); 26 May (1) KSP (KHD). Herring Gull: 7 Mar (20) CRL (RLK); 1 Apr (1) CHL (KHD, LHD). Common Tern: 27 Apr (4) Blountville (Joy Kyle, MD); 16 May (1) HRA (AMJ, JTP). Forster's Tern: 16 Apr (1) BOL (RLK, RC); 27 Apr (4) AUS (RLK, RC).

Barn-Owl—Kinglet: Common Barn-Owl: pairs reported near BOL and at AUS (RLK). Great Horned Owl: nest w/2 young CHA (RAR); active nest HRA (JDR). Red-headed Woodpecker: wintering individuals at CHA last reported 12 Apr (RAR). Red-cockaded Woodpecker: 6 Apr (2) (CGD), 9 May (1) (TJW), 27 May (1) (SJS) Catoosa WMA - apparently did not raise young at this single known occupied site in area. Olive-sided Flycatcher: 28 Apr, 23 May (1) CHA (RAR). Willow Flycatcher: 14 May (first report at nesting site) AUS (RLK); 16 May (1) HRA (JTP, AMJ); 17 May (2) Alcoa Marsh (SJS). Tree Swallow: 2-28 Apr (3 reports, 5-120) CHA (RAR); 28 Mar (200+) WBL (LJF); 17 May (1) at prime nesting habitat 3 mi S of Chilhowee Dam, BLC (BHS, SJS); 18 May - 2 adults on DOL where nested past 3 summers (JAK). Bank Swallow: 13 Apr - 10 May (5 reports, 1-7) CHA (RAR, JTP, AMJ); 16-18 May (40+) AUS (RLK); 26 May - at KSP 30 + active nest holes in bank of fly ash on N side of disposal area, 1984 nest site leveled (KHD). Brown-headed Nuthatch: 4 new areas East Brainerd, CHA (RAR); active nest CLE (PHD). House Wren: 12 Apr (1) JNC (MD), ers; one regular Maryville from 29 Apr (JAK); 12 May (1) CHA (JRP). Marsh Wren: 4 May (2) CHA (RAR). Golden-crowned Kinglet: 28 Apr (1) Knox Spring Count (Knox Chapter, TOS), late. Ruby-crowned Kinglet: 11 May (1) KNX (ARH, JCH), lrs.

Thrush—Warbler: Hermit Thrush: 13 Apr (1) CHA (RAR). Water Pipit: 3 Apr (80+) WGC (RLK). Cedar Waxwing: last 27 May at CHA (RAR). Loggerhead Shrike: 27 Mar, 27 Apr (1) WGC (RLK); 28 Apr (2 ad, 3 y) CHA (RAR). Solitary Vireo: 17 Mar (1) Campbell Co. (JCH). Warbling Vireo: 18 May (1) Mascot (ARH, Paul Hartigan, Jim & Betty Mason, B. Jones) - stayed into summer, first local breeding season record in several years. Red-eyed Vireo: arrived KNX in large numbers earlier than usual, 20 Apr (12) KNX (JMC, CPN *et al.*); 194 on KNX spring count on 28 Apr, about twice normal number. Tennessee Warbler: first 24 Apr (3) KNX (JCH), then present there in higher than average numbers during rest of spring, with 101 on spring count. Orange-crowned Warbler: 15 Apr (1) NOR (CPN); 20 Apr (1), 22 Apr (2), 28 Apr (1) KNX (ARH *et al.*); more reports than normal there. Northern Parula: 1 Apr (1) Decatur (CPN); 16 Apr (1) JNC (RLK) - both early reports. Yellow-throated Warbler: 31 Mar (2) NOR

(CPN). Bay-breasted Warbler: very early, 20 Apr (3) KNX (JMC, CPN *et al.*). Prothonotary Warbler: first 21 Apr AUS with 2-3 then regular there (RLK).

Grosbeak—Siskin: Rose-breasted Grosbeak: 25 May (2) CHA (KHD). Blue Grosbeak: first 25 Apr AUS then several recorded there regularly (RLK). Dickcissel: 10 May (8) CHA (AMJ, JTP). Bachman's Sparrow: 12 May (1) Berry Island, Grainger Co. (RLK). Vesper Sparrow: 25-29 Mar (1-8) CHA (RAR); 28 Apr (1) KNX (CPN), late there; 14 May (1) AUS (RLK, RC). LeConte's Sparrow : 28 Apr (1) KNX (JCH). Bobolink: 10 May (50) CHA (JTP, AMJ); 18 May (30) WHP (JAK). Rusty Blackbird: 28 Feb - 16 Mar (7) BLC (JAK). Purple Finch: numbers continued low WGC with their last sighting JNC on 23 Apr (MD); no comment from KNX; 9 banded 16 Mar COL (REL), with last report CHA 13 Apr (RAR). House Finch: numerous JNC thru mid-April when the flocks broke up (LHTOS); no comment was received from KNX and 2 active nests in hanging baskets at CHA (KHD); also nested in similar habitat in CLE, apparently 2nd year at site (C. Richard Hughes); 22 May - pair nesting in trimmed hemlock tree at Alcoa (JAK). Red Crossbill: 14 May (7) Cumberland Co. (BHS, SJS). White-winged Crossbill: female reported last period at East Brainerd, CHA, remained until 12 Apr (Michael A. and Barbara McMahan). Pine Siskin: no sightings from JNC (LHTOS); present in small numbers in KNX and Oak Ridge (ARH, JMC *et al.*); 1-25 irregular CLE to 11 May (PHD); 4 Mar -29 Apr (35 banded) COL (REL) with last sighting COL 24 May (REL).

Locations: AUS - Austin Springs; BLC - Blount Co.; BOL - Boone Lake; CHA - Chattanooga; CRL - Cherokee Lake; CLE - Cleveland; COC -Cocke Co.; DOL - Douglas Lake; HRA - Hiwassee River Area; JEC - Jefferson Co.; KSP - Kingston Steam Plant; KNC - Knox Co.; KNX - Knoxville; NOR - Norris; NRL - Norris Lake; SAB - Savannah Bay; WGC - Washington Co.; WBL - Watts Bar Lake; WHP - White Pine.

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EASTERN MOUNTAIN REGION—Weather throughout this period was warm and very dry. Rainfall was below average all three months, and this was one fo the driest spring seasons in many years.

Waterfowl numbers were down, and the few birds present left earlier than normal. Except for both species of yellowlegs, shorebirds were low in numbers. As during the winter, northern finches were very low in numbers. Especially noticeable were the few Purple Finch reports. No Evening Grosbeaks or crossbills were reported from the northern end of the region, but Pine Siskins did make brief appearances from mid-April through mid-May. Perhaps the best bird of the season was the first confirmed report of a Northern Saw-whet Owl, present during April on Roan Mountain.

Grebe—Hawk: Horned Grebe: 9 Mar (4) WTL (RC, SG, MD); only report. Great Egret: 12-13 Apr (2) Wagners Island, Watauga River (MD, SG, CFW). Green-backed Heron: 7 Apr (1) WTR (CFW), ers. Yellow-crowned Night-Heron: 29 Mar (2) Hunter Swamp, Carter Co. (LHTOS), ers. Mute Swan: 2 Mar (4) SHL (J. Wallace Coffey). Canada Goose: several broods from stocked birds in ELI area (GDE). Blue-winged Teal: 25 Mar - 18 May in ELI area (LHTOS). Northern Shoveler: 6 Apr (6) ELI (GDE, CFW). Ring-necked Duck, Lesser Scaup, Bufflehead: fewer than average number of reports, ELI area (LHTOS). Hooded Merganser: 28 Mar, 5 Apr (4-6) RIL (CFW). Red-breasted Merganser: 29 Mar (9) WTL (RLK). Osprey: in ELI area 6 Apr - 14 May (LHTOS). Sharp-shinned Hawk: 7 Mar (1) PWB (RC); 9 Mar, 6 Apr, 3 May (1) ELI (GDE). Cooper's Hawk: 13 Mar (1) PWB (RC); 27 Apr (1) SMV (GOW); 3 May (1) RNM (GDE). Broad-winged Hawk: 9 Apr (1) Unicoi (GOW), ers.

Yellowlegs—Flycatcher: Greater Yellowlegs: 4 Apr (3) RZF (CFW), then several present thru 6 May. Lesser Yellowlegs: 30 Mar (2) RNC (GDE), ers, present thru 8 May. Pectoral Sandpiper: 27 Apr (1) ELI (GDE). Bonaparte's Gull: 29 Mar (1) ELI (LHTOS). Ring-billed Gull: 26 May (2) WTL (GDE), late. Herring Gull: 30 Mar (1) RNC (GDE), only report. Black-billed Cuckoo: 31 May (1) IMG (GWS, SG), ers, late. Common Barn-Owl: 15 May (1 road kill) SMV (GOW). Barred Owl: 31 May (1) IMG (GWS, SG). **NORTHERN SAW-WHET OWL:** 12 Apr - 27 Apr (1, possibly 2) RNM (RLK), first confirmed report from location; 15 May (2) Clingman's Dome, GSMNP (SJS, BHS). Chuck-will's-Widow: 27 Apr (3) Milligan College (RLK). Yellow-bellied Sapsucker: 23 Apr (1) ELI (HHF), lrs. Least Flycatcher: 3 May (1) RNM (GWS), ers. Alder Flycatcher: 15 May (1) RNM (SJS, BHS), ers. Olive-sided Flycatcher: 1 May (1) RNM (HHD); 15 May (2) Alum Cave Bluff, GSMNP (SJS, BHS).

Martin—Vireo: Purple Martin: 16 Mar (2) ELI (GDE), first report, about 1 week late. Tree Swallow: 1 Apr (12) RZF (CFW). Barn Swallow: 12 Mar (1) PWB (RC), early. Common Raven: 27 Apr (nest) near RIL (GDE, HHF). Red-breasted Nuthatch: few reports after 1 April. Veery: 16 May (1) RNM (RLK), ers. Swainson's Thrush: 8 May (1) WIL (RLK), only report. Gray-cheeked Thrush: no reports. Water Pipit: 2 Mar (20) PWB (RC). Loggerhead Shrike: no reports. Solitary Vireo: 30 Mar (1) SMV (GOW). Warbling Vireo: 27 Apr (2) ELI (GOW, HHF).

Warbler—Grosbeak: Blue-winged Warbler: 29 Apr (1) PWB (RC), ers. Golden-winged Warbler: 27 Apr (2) Holston Mountain (GOW, CFW), ers. Cape May Warbler: 22 Apr (1) PWB (RC), first report. Yellow-rumped Warbler: 14 May (2) ELI (HHF), last report. Pine Warbler: 11 Mar (1) WIL (RLK), ers. Black-and-white Warbler: 3 Apr (1) Erwin (GWS), ers. Swainson's Warbler: 27 Apr (1) WIL (GOW, CFW). Northern Waterthrush: 16 Apr (2) Laurels (GOW), ers. Louisiana Waterthrush: 29 Mar (10) Laurels (LHTOS), ers. Canada Warbler: 4 May (1) RNM (RLK), ers. Blue Grosbeak: 23 Apr (1) PWB (RC), ers, numerous later in period. Chipping Sparrow: 16 May (1) RNM, 5200' elev. (RLK). Vesper Sparrow: 12 Apr (6) RZF (LHTOS). Grasshopper Sparrow: 17 Apr (1) PWB (RC), ers, then numerous. Fox Sparrow: 12 Apr (1) RNM (RLK), only report. White-throated Sparrow: 12 May (1) ELI (HHF), lrs. White-crowned Sparrow: 29 Apr (2) SHL (RL), lrs. Rusty Blackbird: 3-23 Apr (1) RZF (GOW, CFW). Purple Finch: present in lower than normal numbers, 23 Apr (1) ELI (HHF), lrs. House Finch: wintering flocks left mid-April, reports of young birds by end of period at ELI (LHTOS). Pine Siskin: 3 Apr - 16 May (flocks of 8-15) ELI area (LHTOS). Evening Grosbeak: no reports.

Locations: ELI - Elizabethton; GSMNP - Great Smoky Mountains Nat. Park; IMG - Iron Mountain Gap; PWB - Powder Branch, Carter Co.; RIL

-Ripshin Lake; RNC - Roan Creek, Watauga Lake; RNM - Roan Mountain; RZF - Razor Farm, Carter Co.; SHL - South Holston Lake; SMV - Siam Valley, Carter Co.; WIL - Wilbur Lake; WTL - Watauga Lake; WTR - Watauga River, Carter Co.

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BOOK REVIEW

BIRDS OF THE NASHVILLE AREA, 4th EDITION, by Henry E. Parmer, 1985. Nashville Chapter, Tennessee Ornithological Society. iv+60 pp.—The first three editions of this book were compiled entirely or largely by Henry E. Parmer. His death occurred during the preparation of this revision, which serves as a memorial to him. Furthermore, he donated the funds needed for the publication of the fourth edition. The committee which produced this revision may be considered along with Henry Parmer as coauthors; they are David F. Vogt, C. Gerald Drewry, Paul B. Hamel, and Stephen J. Stedman. They and members of the Nashville T.O.S. who made the bird records on which this book is based can be proud of their work.

The area covered has been enlarged from that of the previous editions. With Nashville at the center, it includes all of seven counties and parts of two others lying in the Central Basin and the edge of the Western Highland Rim. A two-page map shows the area and locations referred to in the text.

The introduction describes briefly the history of ornithological work in the area, and the physiography, vegetation, and climate of the area. Terms, sources of records, and standards used are described. Changes in the abundance of over 25 species since the third edition are summarized.

The bulk of the book consists of accounts of 306 species, describing for each its seasonal presence and relative abundance. The format is the same as in previous editions. New are bar graphs for each of the species to illustrate the seasonal occurrence.

Other changes since the third (1975) edition are that common names and the sequence of species now follow the 1983 edition of the "AOU Check-list", and that 22 species have been added as occurring in the area and four species have been added to the breeding bird list.

Page ii bears this message: "Requests for copies accepted by Treasurer, Nashville Chapter TOS, P. O. Box 24573, Nashville, TN 37202-4573."

This is certainly the most up-to-date and detailed report on the status of birds in any locality in Tennessee. It stands as a monument to Henry Parmer and to over two hundred observers, bird-watchers or amateur ornithologists, who made the observations and organized the records. And, as clearly stated in the introduction to this book, the work is not done and never will be because the whole of birdlife is always changing.—JAMES T. TANNER.

PREPARATION OF COPY FOR PUBLICATION

The purpose of THE MIGRANT is the recording of observations and original information derived from the study of birds, primarily in the state of Tennessee or the area immediately adjacent to its borders. Articles for publication originate almost exclusively from T.O.S. members.

Contributors should prepare manuscripts and submit them in a form acceptable to the printer, after editorial approval. Both articles and short notes are solicited but their format should be somewhat different.

Some suggestions to authors for the preparation of papers for publication are given herewith.

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AN ANALYSIS OF CHRISTMAS BIRD COUNTS IN TENNESSEE

James T. Tanner

One of the original goals of the Christmas Bird Counts was to be a kind of annual census of winter bird life. The history of the counts in Tennessee through the year 1964 was described in detail by Laurence O. Trabue in the 50th Anniversary Issue (June 1965) of *The Migrant*. The first reports published in *The Migrant* were for 1930, from Memphis, Nashville, and Knoxville. Participation increased, and in 1984 twenty localities were included. Since 1930 counts have been made in almost 50 localities in Tennessee, some for only one year.

This report is an analysis of winter bird populations in Tennessee as recorded in the Christmas Bird Counts (hereafter abbreviated to CBC). The ideal sources of data would be long and continuous records of CBC, each from the same area and each with complete information on the area, numbers of observers and party-hours, and unusual species. No ideal records exist, but eight localities were chosen as satisfactory for this analysis. These have continuous records, with the exceptions noted below, and with adequate information published in *The Migrant* for evaluating the counts. Memphis has a continuous record for 1934 through 1984, except for 1963 when a heavy snow storm disrupted the count, making a total of 50 years of good records. Reelfoot has a continuous record for 1960-84, 25 years, except for 1967 when the lake was frozen and water bird counts were abnormal. Columbia has a record for 1962-84, 23 years; Nashville for 1938-84, 47 years; Chattanooga for 1954-84, 31 years; Knoxville for 1958-84, except for 1976 when no details were submitted, leaving 26 years. CBC in the Great Smoky Mountains are continuous in one area from 1937 except that the center was moved to another area for the years 1957-61, leaving a record of 43 years for the original area. Elizabethton's record begins in 1944, but in 1960 the area was moved to include more of Watauga Lake, leaving a record of 25 years for water birds and 41 years for land birds. Centers of all areas were moved some, but with the exception described above of Elizabethton, the shifts made no obvious change in the species or numbers of birds observed.

The eight locations can be grouped on the basis of geography and birds observed into four regions: Memphis and Reelfoot in West Tennessee, Columbia and Nashville in Middle Tennessee, Chattanooga and Knoxville in the Eastern Valley, and the Smokies and Elizabethton in the Appalachian Region.

METHODS OF ANALYSIS

The data were analyzed for frequency, abundance, and trends of each species. Frequency is measured as the percent of years a species was present in the CBC for each locality (total number of CBC for each locality is given in a preceding paragraph).

When measuring abundance, some method of standardizing the number reported is necessary to allow for the amount of effort—number of observers, party-hours, miles traveled—spent in counting (Raynor 1975). For standardizing, I tried two bases: the number of observers and the number of party-hours. The second gave more consistent results, so the number of birds reported per 50 party-hours is used as the standardized measure. The number 50 was chosen because it is an approximate average of party-hours in a CBC in Tennessee.

Standardization by party-hours does not work well for birds which congregate in small areas. For a simple example, if there is one lake with waterfowl in the CBC area, it will be inspected no matter how many observers are active, and the number of waterfowl counted will be independent of the number of party-hours. When analyzing the waterfowl counts for Columbia, I found that using a base of party-hours led to inconsistent results, so for that locality alone no adjustment was made in the numbers of waterfowl. The same problem occurs to a lesser extent with birds like European Starlings and blackbirds that congregate in large roosts, but because these birds are scattered over the countryside during the day I adjusted all their numbers as described above.

As an average of the number of individuals present over the years at each locality, I used the median; this is the middle number in that reports higher than the median are as frequent as reports lower than this number. The advantage of the median is that it is little affected by large errors. Also it is a good average in the sense that half of the records are higher and half are lower.

To test for trends in the abundance of a species I used the statistical method of runs (Conover 1971). This method calculates the statistical significance of a series of either high or low numbers as compared with a random series. Also, comparisons were made between the trends of a species at one locality with the trends at the other locality in the same region. The criterion used for deciding whether or not a species had changed in abundance was a combination of the statistical significance and similar trends in abundance at two or more localities.

ABUNDANCE ACROSS TENNESSEE

Table 1 summarizes the frequency and abundance of 120 species of birds at eight locations in Tennessee as reported in the CBC record. The first line for each species is the frequency, the percent of the times that the bird was listed for that locality. Eighteen species were recorded in from 99% to 100% of all counts. The low average frequency in the table is 4%; birds reported less often were not included.

The second line for each species is a measure of abundance. Each figure is an average of the number of individuals observed per 50 party-hours; the average is the median for all times that the bird was present (i.e., zeroes were not counted in computing the median). These figures are not adjusted for the fact that some localities have records beginning much earlier than others nor for any trends in abundance, but the names of birds which have changed in abundance are marked with an asterisk.

The highest numbers are for species which congregate in roosts. The average number of European Starlings reported in the CBC across Tennessee is 26,600, of Common Grackles is 26,100, and of Red-winged Blackbirds is 21,900. Waterfowl as a group have high numbers because they flock; Mallards lead with an average of 11,300, most of which were at Reelfoot Lake.

One weakness of the CBC record is that there is no way to compare the true abundance over the whole of Tennessee of birds occurring in large, conspicuous flocks with birds that do not congregate but are scattered over the countryside. The latter may actually be more abundant. Of these, the commonest in Tennessee is the White-throated Sparrow with an average (across all localities) of 296 individuals per 50 party-hours; second is the Dark-eyed Junco with 215; third the American Crow with 212; and fourth the House Sparrow with 178. These four species actually do occur in flocks in the winter, but the flocks are much smaller than those referred to in the preceding paragraph.

The table presents a general picture of the population of winter birds in Tennessee. It could be analyzed in countless ways. One interesting observation is that there are about 40 species which increase in abundance westward across the state and only about 10 that increase eastward.

Comments on a few species are necessary. Rock Dove was omitted from the table because it was not included in the earlier CBC. Greater and Lesser Scaup are combined under "Scaup" because of the uncertainty of many figures. The numbers under "Carolina Chickadee" include the Black-capped Chickadees observed in the Great Smoky Mountains. The following species were omitted from the table because they were observed in only one locality; the figures in parentheses are the frequency and abundance as they would be in the table: Golden Eagle at Reelfoot (52%, 1); Sora at Columbia (35%, 5); Brown-headed Nuthatch at Chattanooga (16%, 8); Western Meadowlark at Memphis (28%, 2).

CHANGES IN ABUNDANCE

Changes in abundance with time differed between species. For some species the adjusted numbers were very consistent from year to year, supporting the method of standardizing numbers by the party-hours. On the other hand, the most erratic numbers were for European Starlings and blackbirds; they depended on whether or not a winter roost was in the count area. Most of the species, about 66%, showed no consistent trends. Forty-two species were identified as having significant changes in abundance; the criteria for these decisions are described above.

The changes in abundance had no overall pattern. I could find no correlations between the changes and the temperature and precipitation in November and December of each year, which would be the weather conditions most likely to affect the CBC. For describing the changes and explaining some of them, I found that they could be grouped as they are in the following paragraphs. In these descriptions, "high numbers" means that there was a run or sequence for at least five years of numbers above the median, and "low numbers" refers to runs below the median. The year given for the start or end of a run is often an average of what occurred in two or more localities.

Two species expanded their range into Tennessee. Evening Grosbeaks first appeared in CBC in the Appalachian region, in the Smokies in 1951 and at Elizabethton in 1958, and first in other regions in 1968. House Finches were first recorded in Knoxville in 1975 and in all regions by 1982.

Two species have increased because of wildlife management. Breeding populations of the Giant Canada Goose were established in Tennessee, resulting in high numbers in the Eastern Valley beginning in 1973 and in Middle Tennessee about 1976. Wild Turkeys had high numbers in West Tennessee since 1975. On the other hand, they have almost disappeared from the Smokies CBC after 1948.

Two species of herons have changed in abundance, probably because of changing locations or success of rookeries. Great Blue Herons statewide were low from 1963 through 1974 and high since 1978. Black-crowned Night-Herons at Nashville were high from 1954 through 1963 and after that almost absent, while at Knoxville and in the Smokies CBC they have been high since 1982.

Five aquatic birds have increased and one decreased. Some of the increases are correlated with the spread of water milfoil in the large reservoirs of the Eastern Valley. Pied-billed Grebes have been high statewide except in the Appalachian region since 1970. Mallards have been high in Middle Tennessee and at Chattanooga since 1978, but in the same areas Black Ducks have been low since 1973; these changes match nationwide changes in these two species. American Wigeon have been high in the Eastern Valley since 1977, and Gadwall in Middle Tennessee and the Eastern Valley since 1979. American Coots have shown more distinct and widespread changes than have the ducks, being high in West Tennessee since 1961 and in Middle Tennessee and the Eastern Valley since 1971.

Three raptors have changed significantly in abundance, but not with parallel trends. Red-tailed Hawks, consistently low before the following dates, have been high at Memphis since 1959 and in the rest of Tennessee since about 1973. American Kestrels at Memphis were high until 1958 and low thereafter, while in the Eastern Valley and Smokies they were low from 1961 to 1974 and high before and after that period. Eastern Screech-Owls have been high in all regions except Memphis since about 1971; this may be a result of more time and effort in "owling".

Four species of forest birds have increased, possibly because of the growth and maturation of forests and woodlots resulting in more acorns and woodboring and bark insects. Pileated Woodpeckers have been high at Memphis since 1959, at Reelfoot since 1972, and in the Appalachian Region since 1962. Red-bellied Woodpeckers have been high at Memphis since 1965, at Reelfoot since 1976, in Middle Tennessee since about 1965, and in the Appalachians since about 1972. White-breasted Nuthatches and Blue Jays have both been high in the Appalachian Region since 1968. At

Nashville Blue Jays were consistently low before 1959.

Three migrant insectivorous birds usually found in woods have increased in all regions; Ruby-crowned Kinglet after 1972, Red-breasted Nuthatches since 1974, and Yellow-rumped Warbler after 1976.

The following six species had relatively long periods (5 to 14 consecutive years) of either highs or lows, with the high numbers being consistently more frequent since 1970. The beginning of the recent high numbers varies. Common Snipe increased in West and Middle Tennessee by 1968. Mourning Doves have been high in West Tennessee since 1970 and in the rest of the state since 1975. Belted Kingfishers have been high statewide since 1971. Brown Thrashers have been high in Middle Tennessee and the Appalachian Region since 1972. Both White-throated and Swamp Sparrows were high from 1960 through 1975 in West Tennessee, after 1975 at Nashville, and after 1972 in the Eastern Valley and Appalachian Region.

Three species have increased recently but otherwise had different trends from those of the preceding group. Crow numbers have been erratic, but in all localities except in Middle Tennessee they were low from 1971 to 1978 followed by highs thereafter. Although European Starling numbers depended largely on the location of winter roosts, in the Appalachian Region they were consistently low before 1960 and high after that. American Woodcock were consistenly low in all areas before 1970; then in Middle Tennessee the numbers were high after 1975.

The preceding discussion concentrated on birds which have increased in recent years. Others have decreased, and two species have almost disappeared. Peregrine Falcons were erratically present in the Smokies through 1955 and then once in 1965; the last record on a CBC in Tennessee was in 1971 at Reelfoot. Bewick's Wrens have been low statewide since 1965, and there have been no records on CBC in the Appalachian Region since 1968 and in the Eastern Valley since 1975.

Eastern Bluebirds have decreased in three localities or regions: at Memphis after 1955, at Nashville after 1958, and in the Appalachian Region after 1965. Both Dark-eyed Juncos and Field Sparrows had low numbers in the Eastern Valley and Appalachian Region after 1971. House Sparrows in all areas except West Tennessee had long periods of high numbers before 1970 and of low numbers after 1973.

Five species had similar patterns of several long periods (5 to 20 years) of high or low numbers, with mostly low numbers statewide before 1955, many high periods in the interval 1956 to 1970 or 1975, followed by decreases. Cardinals and Rufous-sided Towhees in the Eastern Valley had low numbers beginning in 1971. Loggerhead Shrikes in West Tennessee, the Eastern Valley, and Appalachian Region were low beginning in 1974. Eastern Meadowlarks were low in all regions except the Appalachian beginning in 1976. Northern Mockingbirds had a similar pattern through 1971, but the figures after that were erratic.

The changes in abundance can be summarized in several ways. If seven species are removed from consideration because they changed due to invasion, game management, or other unique reason, there are 24 species that increased recently, having runs of high numbers since 1970, and 11 species with low numbers since then. These numbers are significantly different (chi-square has a probability of less than 5%). These 35 species can be classified according to whether their winter populations are permanent residents in Tennessee, or a mixture of residents and individuals which migrate here for the winter, or individuals all of which are migrants, not breeding in the state except in a very few localities mostly in the mountains. Dividing each of these groups into those which increased and those which decreased since about 1970, the figures sort out as follows: permanent residents which have increased, 4; permanent residents which have decreased, 4; mixed populations which have increased, 8; mixed populations which have decreased, 5; migrants which have increased, 12; migrants which have decreased, 2. There is a consistent trend; winter populations of migrants have increased in Tennessee relatively more than permanent residents. The reasons for this are unknown.

A broader test can be made by using the figures from a total of 56 species which in the period since 1970 had a significant number of runs of either high or low numbers lasting at least five years. The total number of high runs was 180 and of low runs was 116. These runs or sequences of highs or lows were counted according to which of the four regions of the state they occurred in. The proportions of highs to lows in each region were almost the same. The number of runs of high numbers is very significantly larger than those of low numbers (chi-square has a probability of less than 1%).

In summary, of the 124 species that appeared in about 4% or more of the eight longest CBC records in Tennessee, 42 or 34% had significant changes in abundance in one or more of the four regions of the state. In the last fifteen years (1970-84) there were more increases than decreases—68% of the significant changes were increases—and these occurred most in species migrating to Tennessee for the winter. Changes were almost equally common in the four regions. Causes for a few of the changes can be identified or suggested, but for most the causes are unknown.

TABLE 1. Frequency and abundance of winter birds in Christmas Bird Counts in Tennessee. The first line for a species is the percent of CBC that the species has been reported from each locality. The second line is the median number reported from the locality. Species followed by an asterisk have changed in abundance as described in the text.

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Common Loon	0	24	4	11	58	23	0	48
		3	1	1	3	2		1
Pied-billed Grebe *	76	88	87	100	87	77	12	92
	2	6	8	2	5	8	1	5
Horned Grebe	4	16	13	15	97	54	0	64
	1	2	1	1	12	3		4
Double-cr. Cormorant	20	44	4	0	26	19	0	4
	8	5	1		2	1		1

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Great Blue Heron *	74	100	87	77	71	100	28	44
	1	14	10	2	3	16	1	1
Black-cr. Night-Heron *	0	4	9	23	0	12	9	0
		1	4	9		4	4	
Snow Goose	26	84	9	2	6	4	2	0
	3	9	2	1	7	1	1	
Canada Goose *	42	100	74	28	55	50	9	8
	14	18	30	20	16	41	6	1
Wood Duck	52	100	91	19	65	27	5	24
	4	117	3	3	6	1	1	3
Green-winged Teal	6	92	65	9	23	15	0	12
	1	195	10	2	2	2		4
American Black Duck *	32	100	96	66	97	65	9	72
	2	2000	24	5	33	8	1	8
Mallard *	94	100	96	89	97	85	7	88
	24	90K	82	18	34	12	2	34
Northern Pintail	18	96	35	6	19	27	2	16
	7	480	2	3	3	2	1	2
Blue-winged Teal	16	56	22	2	3	8	2	0
	3	15	2	1	1	1	1	
Northern Shoveler	20	96	61	11	13	15	0	4
	2	660	3	3	1	1		1
Gadwall *	20	100	74	51	68	73	0	8
	2	3500	28	4	14	17		5
American Wigeon *	16	96	74	32	48	50	0	52
	2	2000	9	5	6	2		5
Canvasback	34	92	74	68	23	23	0	8
	3	71	5	6	3	1		1
Redhead	14	88	74	28	35	19	5	20
	2	28	3	3	2	2	1	3
Ring-necked Duck	60	100	91	89	55	73	5	100
	5	4100	75	16	10	4	1	23
Scaup (2 species)	84	96	96	91	81	65	2	100
	22	214	12	31	45	3	1	5
Common Goldeneye	22	96	52	72	74	62	0	40
	3	30	3	3	7	2		2

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Bufflehead	10	84	26	45	39	54	0	100
	5	52	1	21	8	3		51
Hooded Merganser	20	92	65	17	68	69	5	48
	1	30	3	2	4	8	1	3
Common Merganser	6	76	0	12	13	31	0	12
	1	8		1	2	1		5
Red-breasted Merganser	6	24	4	0	29	19	0	20
	4	2	8		3	2		4
Ruddy Duck	26	84	74	40	27	27	0	12
	2	600	3	2	7	1		1
Black Vulture	42	72	96	85	19	4	12	5
	4	5	212	11	2	1	2	1
Turkey Vulture	58	48	39	57	32	23	65	17
	4	4	4	2	2	1	3	1
Bald Eagle	6	100	0	0	19	15	5	0
	1	64			2	1	1	
Northern Harrier	98	96	91	81	74	31	14	5
	3	7	6	2	1	1	1	1
Sharp-shinned Hawk	30	8	13	30	42	58	40	34
	1	2	2	2	2	1	1	1
Cooper's Hawk	56	28	39	72	55	69	60	56
	2	2	3	2	1	1	1	2
Red-shouldered Hawk	76	100	39	83	74	54	21	15
	4	8	2	2	2	1	1	1
Red-tailed Hawk *	100	100	100	100	97	100	88	46
	13	27	25	8	10	3	3	2
Rough-legged Hawk	14	36	22	9	0	0	0	0
	1	1	2	1				
American Kestrel *	98	100	100	100	100	100	98	100
	11	19	30	21	6	6	2	7
Peregrine Falcon *	2	8	0	2	0	0	26	0
	1	1		1			1	
Ruffed Grouse	0	0	0	0	0	0	95	37
							3	1
Wild Turkey *	26	40	0	0	0	0	19	0
	5	12					3	

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Northern Bobwhite	100	60	96	98	97	92	77	73
	50	9	65	24	16	22	8	18
American Coot *	50	96	96	77	81	73	5	32
	5	4000	500	16	40	210	1	2
Killdeer	100	96	100	100	100	100	81	100
	42	24	16	43	42	48	12	14
Common Snipe *	86	68	91	91	86	96	37	59
	3	8	16	2	8	9	1	4
American Woodcock *	22	16	61	21	45	15	9	0
	1	2	2	1	2	1	1	
Bonaparte's Gull	8	52	0	0	29	31	0	4
	4	16			19	2		7
Ring-billed Gull	92	100	9	30	97	100	2	28
	36	110	60	5	54	127	1	2
Herring Gull	56	88	4	21	90	92	0	16
	3	28	2	2	6	2		1
Mourning Dove *	100	100	100	100	100	100	98	100
	70	52	143	115	219	238	52	46
Common Barn-Owl	6	0	22	15	39	4	0	2
	1		1	1	1	1		1
Eastern Screech-Owl *	30	48	70	81	61	77	44	61
	1	1	4	2	2	2	1	2
Great Horned Owl	42	84	100	81	55	65	47	12
	1	2	7	2	1	2	1	1
Barred Owl	92	88	78	66	32	12	14	0
	1	4	2	2	1	1	1	
Belted Kingfisher *	90	96	100	100	97	100	100	95
	2	6	16	8	8	11	5	9
Red-headed Woodpecker	98	96	57	62	90	42	12	12
	8	20	4	2	7	2	2	1
Red-bellied Woodpecker *	100	100	100	100	100	100	63	83
	42	80	60	42	17	16	3	3
Yellow-bell. Sapsucker	100	100	100	100	100	100	95	85
	13	13	17	13	6	7	3	5
Downy Woodpecker	100	100	100	100	100	100	100	100
	30	39	74	54	22	22	16	26

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Hairy Woodpecker	100	100	100	100	93	92	95	71
	9	7	16	9	4	3	5	3
Northern Flicker	100	100	100	100	100	100	86	100
	80	88	34	40	24	17	4	11
Pileated Woodpecker *	90	100	100	100	100	100	100	83
	2	19	25	13	6	8	7	6
Eastern Phoebe	56	72	57	72	65	65	95	83
	1	2	4	2	2	2	4	3
Horned Lark	90	92	83	98	74	81	37	51
	48	81	22	62	6	8	8	7
Blue Jay *	100	100	100	100	100	100	95	100
	204	72	59	64	102	134	16	58
American Crow *	100	100	100	100	100	100	100	100
	35	382	177	226	150	282	152	290
Fish Crow	30	28	0	0	0	0	0	0
	10	2						
Common Raven	0	0	0	0	0	0	95	27
							3	3
Carolina Chickadee	100	100	100	100	100	100	100	100
	86	135	157	137	75	112	132	90
Tufted Titmouse	100	100	96	100	100	100	100	98
	45	53	116	93	62	51	33	57
Red-breasted Nuthatch *	42	44	30	38	74	58	98	59
	3	3	2	1	3	10	8	5
White-breasted Nuthatch *	80	96	74	94	97	92	91	66
	2	7	4	4	18	5	7	14
Brown Creeper	100	96	74	100	90	100	98	85
	7	7	4	7	4	5	7	3
Carolina Wren	100	100	100	100	100	100	100	100
	64	47	43	47	40	56	22	44
Bewick's Wren *	44	32	78	96	39	27	28	5
	1	2	3	3	2	1	1	1
House Wren	28	8	9	0	6	4	7	12
	1	2	2		1	1	1	1
Winter Wren	96	96	83	94	87	92	100	68
	8	12	3	3	3	2	4	3

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Golden-crowned Kinglet	98	100	65	83	100	100	100	98
	28	12	6	7	10	26	48	16
Ruby-crowned Kinglet *	100	96	91	79	94	96	100	71
	15	18	10	3	8	5	5	5
Eastern Bluebird *	84	92	100	100	100	96	100	95
	16	10	36	60	30	19	22	30
Hermit Thrush	100	96	87	89	87	69	98	61
	11	12	5	3	3	1	6	4
American Robin	100	96	100	100	100	100	100	100
	445	35	1100	440	142	69	43	19
Gray Catbird	16	16	0	0	10	4	12	2
	1	1			1	1	1	1
Northern Mockingbird *	100	100	100	100	100	100	100	100
	85	24	54	89	72	92	8	32
Brown Thrasher *	100	80	78	57	100	96	42	34
	14	6	5	3	10	3	1	1
Water Pipit	60	20	9	36	48	23	12	0
	5	7	10	11	6	25	4	
Cedar Waxwing	98	52	65	89	100	96	67	73
	54	10	47	20	133	40	16	30
Loggerhead Shrike *	100	100	96	98	100	100	84	93
	15	17	14	9	5	5	2	3
European Starling *	100	100	100	100	100	100	100	100
	3100	9800	192K	2800	1388	2950	130	1030
Yellow-rumped Warbler *	100	80	87	100	100	100	91	100
	58	66	12	32	29	36	9	41
Pine Warbler	22	0	0	0	81	27	16	7
	1				2	1	1	1
Palm Warbler	6	0	9	13	19	23	16	2
	2		1	2	2	1	1	3
Northern Cardinal *	100	100	100	100	100	100	100	100
	330	229	306	303	130	174	63	139
Rufous-sided Towhee *	100	92	100	100	100	100	98	100
	49	6	78	68	75	52	8	13
American Tree Sparrow	20	76	0	28	0	0	2	5
	3	4		2			1	1

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Chipping Sparrow	14	20	4	9	71	23	9	7
	1	2	8	2	2	2	1	1
Field Sparrow *	100	96	100	98	100	100	100	100
	104	68	136	110	102	106	61	66
Vesper Sparrow	22	12	0	6	58	8	16	2
	2	1		2	3	2	1	1
Savannah Sparrow	100	72	96	74	87	96	56	44
	44	12	11	6	8	7	3	3
LeConte's Sparrow	50	8	0	4	0	8	0	0
	1	1		1		1		
Fox Sparrow	98	96	100	94	87	81	63	58
	43	18	14	7	4	2	2	4
Song Sparrow	100	100	100	100	100	100	100	100
	169	101	143	107	89	174	75	84
Swamp Sparrow *	98	100	100	100	100	100	86	78
	75	112	71	27	25	11	2	3
White-throated Sparrow *	100	100	100	100	100	100	100	100
	775	319	320	163	231	337	100	119
White-crowned Sparrow	100	76	100	98	81	96	16	88
	14	12	57	28	6	11	2	14
Harris' Sparrow	18	8	0	4	3	0	0	0
	1	1		1	1			
Dark-eyed Junco *	100	100	100	100	100	100	100	100
	396	302	199	279	119	78	185	164
Lepland Longspur	36	36	0	0	0	0	0	0
	100	8						
Red-winged Blackbird	100	100	100	83	87	92	65	29
	2600	168K	4200	58	455	120	4	3
Eastern Meadowlark *	100	100	100	100	100	100	100	98
	220	102	190	132	124	93	28	56
Rusty Blackbird	80	72	96	64	100	85	21	12
	26	22	2000	27	32	20	2	4
Brewer's Blackbird	32	20	39	13	3	0	0	0
	7	4	4	4	2			
Common Grackle	100	100	100	91	97	96	47	59
	2850	156K	50K	98	110	140	2	12

	MEMP	REEL	COLU	NASH	CHAT	KNOX	GSMN	ELIZ
Brown-headed Cowbird	98	100	100	89	87	96	19	22
	330	81K	2000	25	23	31	10	2
Purple Finch	96	68	87	91	97	100	91	83
	27	5	62	23	45	44	14	15
House Finch *	2	0	17	11	23	27	9	10
	1		12	6	4	31	4	18
Red Crossbill	0	0	0	0	0	0	63	24
							11	22
Pine Siskin	16	4	26	36	48	46	74	24
	4	2	14	4	5	12	50	16
American Goldfinch	100	96	100	100	100	100	100	100
	106	88	102	143	117	108	60	104
Evening Grosbeak *	0	12	26	17	23	15	47	34
		10	16	6	22	6	75	12
House Sparrow *	100	96	100	100	100	100	100	100
	230	532	127	129	107	75	52	169

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ROUND TABLE NOTES

RED-SHOULDERED HAWK MIGRATION AT CHILHOWEE MOUNTAIN, TENNESSEE: A CLARIFICATION—The Tennessee hawk migration report for the 1982 season (Fowler, L. 1983, Autumn Hawk Flights 1982, *Migrant* 54:33-37) presents a factual error about, and superficial analysis of, the Red-shouldered Hawk (*Buteo lineatus*) migration which took place on Chilhowee Mountain (Blount County) during the 1981 fall migration. This note presents a correction of the error and a clarification of the analysis offered in that report.

First of all, it is erroneously claimed in the 1982 report that "33 hours of observation" (1983:33) were accumulated during the 1981 hawk-watching season at Chilhowee Mountain. In fact, 99¾ hours of observation occurred, as noted in the 1981 Tennessee hawk migration report (Fowler, L. 1982, Autumn Hawk Flights 1981, *Migrant* 53:58-62), which followed data presented in an earlier publication (Puckette, D. 1982, Southern Appalachians, The Newsletter of the Hawk Migration Association of North American 7:24-27).

Due to the large number of observer hours spent hawk-watching on Chilhowee Mountain in 1981, as well as to the excellent weather for raptor migration which prevailed that season, notable numbers of several raptors besides Red-shouldered Hawks occurred there. For instance, 22 Northern Harriers (*Circus cyaneus*) were reported there in 1981; this figure surpasses the total number of harriers seen in the entire state for any single year from 1973 to 1980. Also, as Fowler has previously noted (1982:58), Broad-winged Hawks (*Buteo platypterus*) were observed in record numbers at this site in 1981. Additionally, unidentified accipiters were recorded in unusually high numbers from this site in 1981, with 120 seen between 16 September and 26 November (B. Stedman, personal data). Thus, when viewed in the context of the entire 1981 migration at Chilhowee Mountain, the 23 Red-shouldered Hawks reported there that year should not be considered an aberrant phenomenon, as they are made to appear in Fowler's 1982 report (1983:33).

Furthermore, the percentage of Red-shouldered Hawks in the entire raptor migration at Chilhowee Mountain in 1981 is not appreciably greater than the percentage of this species in the raptor migration that year at all other lookouts in the state exclusive of Chilhowee Mountain (Table 1). Although these two figures are higher than those for previous years, it is evident that Red-shouldered Hawks were more common than usual in 1981 on a statewide basis, not just at Chilhowee Mountain. This increase in Red-shouldered Hawks continued in 1982 (Table 1), though a return to the pre-1981 levels occurred in 1983 (Table 1). Thus, Fowler's comment (1983:33) that the 1981 Red-shouldered Hawk total from Chilhowee Mountain is inconsistent with the totals from previous years' totals in the region and state was a misleading one.

The age of the Red-shouldered Hawks seen in 1981 at Chilhowee Mountain also lends credence to the high number recorded. Again following Puckette (1982:26), Fowler noted in the 1981 Tennessee hawk migration report (1982:59) that all the red-shoulders seen there were adults, which pose fewer problems of identification than do immatures. This factor appears not to have been considered when the 1982 hawk migration report was written. However, it must be pointed out that Puckette's assertion about the age of

Table 1. Red-shouldered Hawk (RSH)
Migration Data for 1973-1983[1]

Year	RSH at Chilhowee Mountain (CM)	Total Hawks at CM	Percent RSH at CM	RSH in TN	Total Hawks in TN	Percent RSH in TN
1983	3	4036	0.074	8	10,382	0.077
1982	2	1507	0.132	18	7,874	0.228
1981	23	9010	0.255	38	15,517	0.244
1981	--	--	--	15	6,507	0.230
1980	2	2870	0.069	13	11,026	0.117
1979	0	1243	0	6	9,255	0.064
1978	--	--	--	--	--	--
1977	--	--	--	5	8,549	0.058
1976	--	--	--	5	3,659	0.139
1975	--	--	--	4	11,717	0.034
1974	--	--	--	8	9,340	0.085
1973	--	--	--	6	7,272	0.082

[1] *Migrant* 54:35, 1983 and *Migrant* 54:79, 1983.

[2] 1981 Tennessee data exclusive of Chilhowee Mountain.

[3] Prior to 1979 data not available for Chilhowee Mountain in adequate amounts for analysis; data for 1978 not published in tabular form.

these birds is slightly inaccurate: i.e., though the majority of the Red-shouldered Hawks seen at Chilhowee Mountain in 1981 were adults, a few were immatures, especially those seen later in the season.

The correction and clarification made above are offered to reflect more accurately than occurred in the 1982 Tennessee hawk migration report the status of Red-shouldered Hawks at Chilhowee Mountain and in Tennessee during the 1981 season.

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RED-SHOULDERED HAWK MIGRATION AT CHILHOWEE MOUNTAIN: FURTHER CLARIFICATION—Stedman *et al.* (*Migrant* 56:98-100, 1985) questioned the interpretation of the Red-shouldered Hawk (*Buteo lineatus*) migration records for Chilhowee Mountain as reported in the 1981 and 1982 Autumn Hawk Flights (Fowler, *Migrant* 53:58-62, 1982 and Fowler, *Migrant* 54:33-37, 1983). This note addresses and clarifies the four points of contention raised.

First, Stedman *et al.* state that the number of observation hours used to analyze the 1981 hawk data at Chilhowee Mountain was inaccurate, thus invalidating subsequent conclusions drawn in the report. There is a typographical error in the text of the 1982 hawk report indicating 33 hours of hawk observation at Chilhowee Mt. when the actual number of observareported for that site was 99¾ hours. However, the accurate number of observation hours was clearly presented in the tabular data (Fowler, *Migrant* 53:60, 1982) and all analyses and conclusions presented were based upon the actual number of observer hours reported for Chilhowee Mountain.

Secondly, Stedman *et al.* refute the conclusion that the number of Red-shouldered Hawks at Chilhowee Mt. in 1981 (24 birds) was inconsistent with previous statewide totals. However, the records clearly indicate that the Red-shouldered Hawk has always been an uncommon migrant in seasonal totals (Table 1) since the TOS adopted the hawk project in 1951 and began monitoring lookouts in Tennessee and the surrounding region. From 1951-1958, the count averaged 8 Red-shouldered Hawks per year (Finucane, *Migrant* 32:54, 1961) and from 1959-1979 averaged 10.8 RSH/year and .042 RSH/hr. Until 1979, these fall hawk reports also contained data collected from other states within the southern Appalachian region. A summary of hawk migration data for Tennessee only (Fowler, *Migrant* 54:35, 1983; Fowler, *Migrant* 54:79; Fowler, *Migrant* 55:78, 1984) from 1972-1984 shows an average of .046 RSH/hr, which does not significantly vary ($p \lt .05$) from the 20-year regional average of .042 RSH/hr. In contrast, the 38 RSH (.138 RSH/hr) reported statewide in 1981 (Fowler, *Migrant* 53:61, 1982) is the highest number ever reported in a Tennessee hawk count (Table 1) and significantly ($p \lt .05$) exceeds the 1959-1979 average of .042 RSH/hr. Sixty-three percent of these total birds were reported from Chilhowee Mountain. The 1981 Red-shouldered Hawk count at Chilhowee Mt. (.231 RSH/hr) also exceeded the 1966 statewide Red-shouldered hawk count (.145 RSH/hr), which was previously the state's highest count for the species (Table 1). In addition, Red-shouldered Hawk totals at Chilhowee Mt. differed from those reported regionally in 1981. For example, in the southern Appalachian region, many stations reported no Red-shouldered Hawks (*HMANA Newsletter* 7(2):25, 1981). In the northern Appalachian region Seth Benz (*HMANA Newsletter* 7(2):23, 1981) reported that "sightings of Red-shoulders were lower at a majority of the lookout stations." On the basis of these readily available data, it is difficult to see why this particular conclusion was questioned.

Table 1. Red-shouldered Hawk migration in Tennessee.[1]

Year	#RSH	Hrs	RSH/hr	Year	#RSH	Hrs	RSH/hr
1955	1	121	.008	1970	7	180	.039
1956	1	45	.022	1971	12	250	.048
1957	5	110	.045	1972	10	337	.030
1958	4	110	.036	1973	10	316	.032
1959	23	327	.070	1974	10	369	.027
1960	9	197	.046	1975	7	422	.017
1961	10	286	.035	1976	0	290	0
1962	14	252	.056	1977	0	313	0
1963	11	289	.038	1979	8	273.8	.029
1964	13	267	.049	1980[2]	13	187.25	.069
1966	29	200	.145	1981	38	275.25	.138
1967	11	201	.054	1982	18	327.5	.055
1968	14	299	.047	1983	8	237.5	.034
1969	7	249	.028	1984[3]	8	228.8	.035

[1] Complete data unavailable for 1951-54, 1965, and 1978.

[2] 1980-84 includes data from Tennessee only.

[3] Average from 1955-1984 is 10.8 RSH and .044 RSH/hr.

The third point expressed by Stedman *et al.* is that 1981 Red-shouldered Hawk numbers at Chilhowee Mt. were not unusually high because of high observer hours and high numbers of other hawks (i.e., Broad-winged Hawks, *Buteo platypterus*) reported at this site. However, current hawk migration data do not indicate that high observer hours and high numbers of other raptors are necessarily related to high numbers of Red-shouldered Hawks. For example, the southern Appalachian site with the most extensive observer coverage (344 hours), Harvey's Knob, Virginia, reported only 18 Red-shouldered Hawks (.052 RSH/hr) in 1981. In addition, at Mendota Firetower, Virginia, (manned until recently by TOS members), which had observation hours (94.5) comparable to those at Chilhowee Mt., no Red-shouldered Hawks were reported in 1981 (Table 2). The author knows of no published studies which correlate interspecific hawk abundances in a given season. It is doubtful that such a correlation would be meaningful because of the variables involved (i.e., flapping vs. gliding hawks, interspecific differences in initiation of migration, weather, etc.). In addition, this correlation is not supported by historical hawk data for the region. For example, in the 1976 hawk count (Finucaine, *Migrant* 48:87, 1978) when the statewide record high number of Broad-winged Hawks was observed (14,221), no Red-shouldered Hawks were reported.

Table 2. Fall migration of Red-shouldered Hawks at Chilhowee Mountain, Tennessee, and Mendota Firetower, Virginia.

	Chilhowee Mt.			Mendota FT		
	RSH	Hrs	RSH/hr	RSH	Hrs	RSH/hr
1984	3	82.7	.036	2	108.0	.018
1983	3	63.6	.047	7	83.0	.084
1982	2	86.0	.023	1	81.0	.012
1981	24	104.0	.231	0	94.5	0
1980	2	35.0	.057	0	76.0	0

Finally, Stedman *et al.* (1985: 98) explain that the high number of adult Red-shouldered Hawks "seen in 1981 at Chilhowee also lends credence to the high number recorded." This statement seems to indicate that the 1982 hawk report questioned the validity of the high numbers of Red-shouldered Hawks reported at Chilhowee Mt. in 1981. Such was not the case. The experience and raptor identification expertise of the observers manning the Chilhowee Mt. tower in 1981 are well established in the state.

In conclusion, the 1981 Red-shouldered Hawk count at Chilhowee Mt. was clearly higher than other annual counts at that site (Table 2). However, future monitoring of this site throughout the hawk migration season (September-November) will be necessary to ascertain if this situation is just an infrequent occurrence or if Chilhowee Mt. is becoming a major migration corridor for Red-shouldered Hawks.

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BANDED PURPLE FINCH IN SEWANEE, TENNESSEE—On 20 March 1984, Mrs. Helen Smith found a dead Purple Finch (*Carpodacus purpureus*) below a window at her home in Sewanee, Franklin County, Tennessee. She noted that it bore a band and therefore gave it to her daughter, Mrs. John Booty, who gave it to me for preservation and investigation. It was an adult male, bearing band no. 0950-12728. The Fish and Wildlife Service Bird Banding Laboratory reported that it had been banded near Stephens City in northern Virginia on 22 April 1982 by Mr. R.

C. Simpson. Mr. Simpson has written me that the bird's plumage at banding time indicated that it was hatched in 1980 or earlier, and therefore it was at least four years old at its death. Mr. Simpson and his helpers banded over 200 Purple Finches on the day of this bird's banding. On 1 May 1982, he caught one of Dr. O. S. Pettingill's Purple Finches, which had been banded in Maine on 30 August 1981. A Purple Finch banded by Mr. Simpson on 22 April 1982 was found in Galway, New York in August 1982.. The recovery of one or a few birds does not establish a route of migration for Purple Finches from New England and along the Appalachian Mountains (via northern Virginia) to southeastern Tennessee, but an accumulation of many records might indicate this.

HARRY C. YEATMAN, University of the South, Sewanee, Tennessee 37375. Accepted 10 November, 1985.

EXTREME DRAWDOWN ATTRACTS UNUSUAL SHOREBIRDS TO WATAUGA LAKE, TENNESSEE—Watauga Lake, a reservoir in the mountains of Carter and Johnson Counties, Tennessee, was formed by damming the Watauga River near Elizabethton in 1948. Although the lake's shoreline is slightly over 160 km long, most of it is too steep and rocky to attract shorebirds. A notable exception is the Roan Creek embayment in Johnson County which has a few acres of mud flats gradually exposed during routine fall drawdown, forming a narrow band of suitable habitat throughout the fall shorebird migration. Small numbers of the more common species can be found there at that time. This area is usually inundated before the arrival of spring migrants.

In 1983 Watauga Lake was drawn down well below its normal minimum elevation of 584m. The drawdown began in early summer with the lake level at about 596m and ended in early December at 556m, more than 27m below normal minimum elevation. This exposed the intake gate guides for maintenance which had not been performed since initial installation. At Roan Creek, the rapid drawdown exposed extensive mud flats and springs which kept large tracts from drying up in the late summer heat. This combination provided much more shorebird habitat than normal. Invertebrate prey were abundant.

I made fourteen visits to Roan Creek between 13 July and 1 October 1983 and recorded sixteen species of shorebirds, an exceptional number for upper east Tennessee. The lake level fell 14m during this ten week period. Table 1 lists the shorebirds sighted and approximate lake elevation for each visit. Readers are encouraged to review the excellent fall shorebird migration statewide for 1983 as reported in The Season (*Migrant* 55:17-28, 1984). The following species deserve additional comments on their status in the upper east Tennessee region comprised of Johnson, Carter, Unicoi, Washington, and Sullivan Counties.

Willet (*Catoptrophorus semipalmatus*)—8-14 Sept. (1); second fall and sixth overall record—five published and one previously unpublished: late April 1977 (11) at a farm pond near Jonesborough, Washington County, by R. L. Knight.

Ruddy Turnstone (*Arenaria interpres*)—8-14 Sept. (1); third record, with the previous records also of single birds at Roan Creek in early to mid September (*Migrant* 34:54, 1963 and 43:103, 1972).

Table 1. Summary of 1983 Fall Shorebird Records at Roan Creek, Johnson County, Tennessee.

	July 13	July 25	July 29	Aug 11	Aug 19	Aug 29	Sept 4	Sept 8	Sept 10	Sept 14	Sept 18	Sept 21	Sept 25	Oct 1
Semipalmated Plover					1	1	5	4	1	4				
Killdeer*	15	25	+	+	+	+	32	+	+	+	+	+	+	+
Lesser Yellowlegs							2	1		5	5	5	4	1
Solitary Sandpiper				1				2	2	4	4	2	1	1
Willet								1	1	1				
Spotted Sandpiper		2	4	4	1	2	2	5	6	10	3	4		
Ruddy Turnstone								1	1	1				
Sanderling							1			2	3	3		
Semipalmated Sandpiper					20	13	10	6	6	9	1	1		
Western Sandpiper					6		12	7	4	3	1	2		
Least Sandpiper				4	9	13	4	6	12	18	12	14	6	6
Baird's Sandpiper		1				1	1	1		3	4	3		
Pectoral Sandpiper				2	3	4	1	4		6	7	8		8
Stilt Sandpiper								2						
Common Snipe										1		1		
Wilson's Phalarope								1						
Total Individuals (excluding Killdeer)	0	3	4	11	40	34	38	41	33	67	40	43	11	16
Total Species	1	3	2	5	7	7	10	14	9	14	10	11	4	5
Approximate Lake Elevation (ft.)	1941	1935	1932	1923	1919	1913	1910	1909	1908	1905	1903	1900	1897	1894

*Killdeer were difficult to count, peaked at about 60 in late September.

Sanderling (*Calidris alba*)—4 Sept. (1) and 14-21 Sept. (2-3); of the previous 17 records, all but one are fall sightings and about half were at Roan Creek.

Western Sandpiper (*C. mauri*)—19 Aug. thru 21 Sept. (1-12); although reported from this region annually in recent years, seldom exceeds two or three individuals.

Baird's Sandpiper (*C. bairdii*)—25 July (1) and 29 Aug. thru 21 Sept. (1-4); third fall and sixth overall record.

Stilt Sandpiper (*C. himantopus*)—8 Sept. (2); eighth fall and eleventh overall record.

Wilson's Phalarope (*Phalaropus tricolor*)—8 Sept. (1); first fall and fourth overall record, with all of the previous records occurring in a nine day period in May 1978 (*Migrant* 49:69&71, 1978).

I thank Earl Griffith of TVA for providing information about the drawdown of Watauga Lake and Charles Nicholson for comments on an early draft of this note.

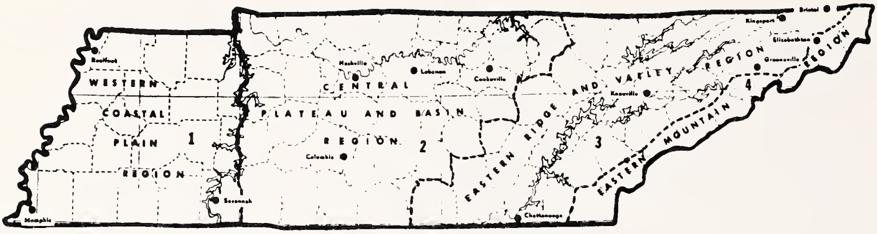
RICHARD L. KNIGHT, 804 Hills Drive, Johnson City, TN 37601.
Accepted 5 October 1985.

HUDSONIAN GODWITS IN LAKE COUNTY, TENNESSEE—On 8 May 1983 at 1500 Central Daylight Time, George R. Payne, Jr., Jeff Wilson, Michael Todd, Wallace Todd and I were observing shore birds in a mud flat formed by field flooding, from atop the levee that borders the eastern side of the Mississippi River, approximately 2.4 km west of Ridgely, Lake County, Tennessee. My attention was drawn to two birds that were much larger than the Lessor Yellowlegs (*Tringa flavipes*) we had been watching. The birds were some 50 m distant. We observed the long upturned bill on both birds and identified them as godwits. With the warm glow of the evening sun at our backs the reddish breast observed on both birds was confused with the warm light. After we watched and photographed the birds for nearly ten minutes, the birds took flight, heading away from us. We then observed the very distinct black and white pattern on the tail and identified them as Hudsonian Godwits (*Limosa haemastica*).

We consulted Roger Tory Peterson's *Field Guide to the Birds, and* Chandler Robbins' et al., *Birds of North America.* The observation was made under clear skies with light winds, temperature was in the 80s°F. Viewing was done with 10x40 Bushnell binoculars, 32x50 Bushnell Sentry II scope, and a C-90 Celestron Scope.

CLAUDE W. BROWN, 3731 Charleston Square, Memphis, TN 38122.
Accepted 20 November 1985.

THE SEASON


Reelfoot
WESTERN COASTAL PLAIN REGION
1
Memphis
Savannah
Nashville
Lebanon
Cookeville
CENTRAL PLATEAU AND BASIN REGION
2
Columbia
EASTERN RIDGE AND VALLEY REGION
3
Knoxville
Chattanooga
Kingsport
Bristol
Elizabethton
Greeneville
EASTERN MOUNTAIN REGION
4

SUMMER: 1 JUNE-31 JULY 1985

No weather information was received from the Western Coastal Plain Region. In the rest of the state, June temperatures ranged from "moderately cool" in the Central Plateau and Basin Region to "slightly below average" in the Eastern Ridge and Valley Region to "slightly above average" in the Eastern Mountain Region. July temperatures ranged from "slightly below normal" in the ridge and valley to "close to normal" in middle Tennessee to "above average" in the eastern mountains. The dry conditions present in the spring extended into June and July in middle Tennessee and some of the ridge and valley. Only the eastern mountains reported above average rainfall in July. In no region reporting, however, was the rainfall so little as to produce marked drought conditions.

Summer is the season when much of the nesting takes place, and one of the exciting aspects of the season is discovering species nesting in new areas. Among the exciting observations of this sort are the several Osprey and Bald Eagle nest attempts in middle Tennessee, reports of Brown Creepers from 2 locations in west Tennessee, and strong evidence of Canada Warblers nesting in the Cumberland Mountains. As might be expected, House Finches extended their range into new locations in middle Tennessee. An occurrence less easily explained was a Western Tanager found at Reelfoot Lake in mid-June, hundreds of miles east of its normal breeding range.

The numerous Breeding Bird Survey (BBS) routes and other census projects conducted across the state provide information for determining population trends, such as the effect of the recent severe winter. Information from the Central Plateau and Basin Region and from the Knoxville area showed reductions in Carolina Wren numbers of from 30 to 50%. While this may seem drastic, please recall that the species entered the winter in very high numbers, and the reduction was not nearly as drastic as that in the late 1970's. Other species which declined in numbers were Eastern Phoebes in the Knoxville area and Eastern Bluebirds and Field Sparrows in middle Tennessee. No information on the populations of these susceptible species was received from west Tennessee or from the eastern mountains.

Much other information on our breeding species, as well as the beginning of the fall migration, follows. —CHARLES P. NICHOLSON.

WESTERN COASTAL PLAIN REGION-Summer birding centered around specific locations such as the sewage lagoons near Memphis and Mississippi River islands for shorebirds. Several new early dates resulted from observations at these areas. The Tennessee Department of Conservation began surveys in Mississippi River bottomlands, and some of their early results are given here. Fieldwork in the pine woods for Bachman's Sparrow produced negative results, and few Grasshopper Sparrows were found in previously occupied nesting areas.

Bittern—Hawk: Least Bittern: 28 Jun (4) REL, S of Air Park Inn (SJS, MT). **TRICOLORED HERON**: 4 Jul (1 imm) ESL, 3 Aug (1 imm) 2 mi S of ESL (BBC, LCC); 18-31 Aug (1) ESL (JRW, MGW). Cattle Egret: uncommon until last week of July in Shelby Co. and Desoto Co., MS (BBC). Yellow-crowned Night-Heron: 14 Mar (1), 16 Mar (2), then absent from site until 8 May (pair on nest) McCorkle site, MEM (BBC, LCC); 15 Jun (24 ad, 5 imm) HWR (MTOS). **WOOD STORK**: 17 Jul (1) ESL (JEW, MGW). Mississippi Kite: 7 Jul (9) S of Hwy 19, LDC, (8) N of Hwy 19, LDC (PBH, MGW); Jun and Jul observations show the kites fairly common and increasing; for third year, young kites hacked in Shelby Co. area, 20 banded and released (JLS, MGW). Red-shouldered Hawk: observed on 23 of 30 selected TDOC survey sites (RPF).

Plover—Tern: Semipalmated Plover: 17 Jul (4) I13 (SJS); 21 Jul (3) ESL (CHB, MGW, JRW). Solitary Sandpiper: 13 Jul (4) ESL (JRW). Spotted Sandpiper: 4 Jul (1) ESL (JRW). Western Sandpiper: 17 Jul (1) I13 (SJS); 27 Jul (4) ESL (CHB, JRW). Least Sandpiper: 4 Jul (7), 13 Jul (72) ESL (JRW). White-rumped Sandpiper: 9 Jun (4) ESL (JRW). Pectoral Sandpiper: 4 Jul (2), 21 Jul (110), 10 Aug (245) ESL (DAD, MGW, JRW). Stilt Sandpiper: 13 Jul (1), 20 Jul (1) ESL (JRW). Short-billed Dowitcher: 13 Jul (1), 21 Jul (1) ESL (CHB, MGW, JRW). Ring-billed Gull: 1 Jul (1), 4 Jul (1) ESL (JRW). Least Tern: 30 Jun (2), 4 Jul (5), 13 Jul (12) ESL (JRW).

Woodpecker—Cowbird: Red-headed Woodpecker: 15 Jun (14) HWR (MTOS); 24 Jun (no birds seen or heard from 0830-1300) S and E of HWR along boundary (BBC, LCC). Tree Swallow: 15 June (10) HWR (GRP), 24 Jun (no birds observed in same area) HWR (BBC, LCC); an effort will be made to determine nesting status of this species next summer. Brown Creeper: 10 May, 20 Jun (1 seen and heard) Old Cranetown, REL, LKC (RPF); 1 June, 7 Jul (1 heard) Obion River S of Hwy 54 near Como (RPF). Blue-winged Warbler: 13 Jun (1) S of Camden, Benton Co. (BBC); 13 Jul (1) NE corner of Decatur Co. (CHB). Yellow Warbler: none observed on Mud Island, Shelby Co. during June and July (BBC). Swainson's Warbler: 14 Jun (14) Hatchie River by boat between miles 97 and 86, HWR Breeding Bird Survey (BBC, LCC, Joe B. Guinn); 24 Jun (1) by road along same area (BBC, LCC). Scarlet Tanager: 15 Jun (none) HWR Breeding Bird Survey (MTOS); 24 Jun (1) NWR (BBC, LCC); 28 Jun (1 singing) REL, OBC (SJS, MT). **WESTERN TANAGER**: 19 Jun (1 male) REL, NE of Samburg, OBC (William P. Peeples, W. Robert Peeples); 21 Jun (1 heard singing) same area (LCC). Lark Sparrow: 16 Jun (3) Sweetlips BBS, NW corner of Hardin Co., 3 mi W of Hinkle (Charles D. Rollins, Sue Rollins). Grasshopper Sparrow: 2 Jun (1) Tibbs BBS, NW of Brownsville (GRP). Brown-headed Cowbird: increasingly common in Memphis area in June and July (BBC *et al.*).

Locations: ESL - Ensley Sewage Lagoons, Shelby Co.; HWR - Hatchie

National Wildlife Refuge, Haywood Co.; I13 - Island 13, Lake Co.; LDC -Lauderdale Co.; LKC - Lake Co.; MEM - Memphis; OBC - Obion Co.; REL -Reelfoot Lake.

MARTHA G. WALDRON, 1626 Yorkshire Dr., Memphis, TN 38117.

CENTRAL PLATEAU AND BASIN REGION—The 1985 breeding season was successful for most species nesting in the region. Temperatures in June were moderately cool (e.g., the 54°F recorded on 20 June established a new record low for that date in Nashville), while those in July were close to normal. Rainfall in Nashville fell decidedly below normal (2.17 inches deficient in June and 1.71 deficient in July), continuing the dry conditions of the preceding season; however, the eastern half of the region enjoyed more plentiful precipitation (e.g., 3.5 inches fell in northern Rutherford County in July). Whatever its amount, the rain that did fall came at well-spaced intervals, as no prolonged periods without rain occurred. In addition to being moderately cool and somewhat dry, late spring and early summer in the Central Basin were also characterized by the appearance of 13-year cicadas (*Magicicada* sp.), which supplied many species of birds with an abundant food source for their young. Probably in response to the outbreak of this cicada brood, Eastern Bluebirds laid three clutches during the season in some areas, as in the Warner Parks and Williamson County.

Two raptors and a fringillid represent the highlights of the season. A pair of Ospreys returned to nest in the region for the second consecutive year and successfully fledged 1 young, while no fewer than 5 Bald Eagle nests were built or reused, up from 2 last year, and 1 presumed in 1983. Although only 2 of these nests successfully produced young, the increase in the number of attempted nestings is still a very encouraging sign for the regional population of this species. For the first time in nearly a decade, Bachman's Sparrows were discovered nesting in the region. Responsibility for this outstanding find goes to that indefatigable nestseeker, Morris D. Williams, whose records grace these pages all too infrequently.

The Breeding Bird Surveys conducted in the region produced some of the most useful information for this report. However, before proceeding to discuss it, let me offer congratulations to three regional fieldworkers. Katherine A. Goodpasture, George R. Mayfield, Jr., and John O. Ellis each completed twenty consecutive years of BBS work in 1985. Their efforts are certainly worthy of commendation. Dr. Goodpasture also deserves accolades for the considerable effort which she expended over the years as State Coordinator of the BBS program. After this season she is stepping down as State Coordinator, to be replaced by Paul B. Hamel.

The Breeding Bird Surveys produced data about 96 species of breeding birds in the region, making it the third most successful BBS season ever in terms of the number of species recorded on the 15 routes run. Twelve species were recorded in higher numbers in 1985 than in any of the preceding 19 years: Great Blue Heron (8), Green-backed Heron (36), Black Vulture (51 - a remarkable turn-around from 1984), Downy Woodpecker (69), Northern Rough-winged Swallow (52), Tufted Titmouse (246), White-breasted Nuthatch (29), Blue-gray Gnatcatcher (122), American Robin (298), Warbling Vireo (6), Northern Parula (11), and Pine Warbler (6). Only 5 species were recorded in lowest-ever numbers: Whip-poor-will (5), Blue Jay (173), Prairie Warbler (39), Eastern Meadowlark (562), and Common Grackle

(764). Species noted to be in decline in the Summer 1984 report (*Migrant* 55:90, 1984) showed little reversal of that trend in 1985, with the exception of Dickcissel which had a relatively good breeding season. Species noted to be increasing in that report revealed a continuation of that trend in all cases except for Brown Thrasher; however, the decline in that species' numbers from 1984 to 1985 was not significant.

Most of us follow with some interest the fate of the semi-hardy species breeding in the region. After the very cold winter of 1984-85, it was expected that several of them would show a reduction in numbers, and BBS data proved this to be the case. Carolina Wren numbers were down about 30% from 1984 levels, Bewick's Wrens went unrecorded on the BBSs for the first time ever, and Eastern Bluebird numbers were reduced about 20% (although many regional observers had earlier expressed the opinion that their numbers had not been affected by the previous winter's cold). Field Sparrows also appeared to be affected by the cold winter, being down about 30% from 1984 levels. Let it be recalled, however, that these declines are rather moderate compared to those which attended the severe winters of 1976-77 and 1977-78, when both Carolina Wren and Eastern Bluebird numbers were more than halved (*Migrant* 49:92, 1978). Despite the modest setbacks for these and a few other species, prospects for most breeding birds in the region were enhanced as a result of the 1985 season.

Grebe—Vulture: Pied-billed Grebe: 6 Jul (1) DRU (DFV, SJS, BHS), only report. Double-crested Cormorant: 15 Jun (1) Old Hickory L. (JDP), new NA late spring date (but possibly summering). Least Bittern: 6 May (1 ad flushed from nest containing 1 egg) Goose Pond, Grundy Co. (PBH, CPN); 22 Jun (2 ad) DRU (SJS, BHS, LDR). Great Blue Heron: all season (190+ nests) DRU (*fide* BPP), highest number of nests in recent years, but still well below the level of nesting at the heronry in the late 1940s (*Migrant* 20:41-42, 1949); all season (197 active nests) AEDC ponds, CFC (*fide* BPP), also highest level in recent years; 16 Jun (2 ad) MC (DFV); 29 Jun (3) GSP (DTC, JPC, SJS, BHS); last 2 records indicate early dispersal from heronries or possibility of local nesting, never yet confirmed in the NA; both the TVA-sponsored heronry-monitoring program and the BBS results show this species undergoing expansion; with the advent of the Tennessee Breeding Bird Atlas Project in 1986, it may be predicted that several new heronries will be discovered in the region in the near future. Great Egret: 14 Jun (1) BAR (DWB); 7 Jul-EOP (1) Robertson Pond, LWC (DJS); 10 Jul (1) Laguardo, WLC (SJS); 4 birds, possibly comprising 2 pairs, were observed at the DRU heronry early in the season, but no nesting evidence was obtained (*fide* BPP); this species' return to breeding status in the region may be imminent. Snowy Egret: 13 Jul-EOP (1) CCNWR (SJS, DWB), only report. Little Blue Heron: 1 Jul (3) BAR (DWB); 24 Jul (3 imm) MOP (SJS, BHS); 24 Jul (1 ad) north-central WMC (BHS); 13 Jul-EOP (up to 70, including 55 imm) CCNWR (DWB, SJS, BHS); 27 Jul (13, including 10 imm) DRU (SJS, BHS, Anne Nixon, Robert Nixon); all reports probably denote post-breeding dispersal. Cattle Egret: 13 Jul (1) DRU (SJS); 13-22 Jul (up to 6) CCNWR (DWB, SJS); 25 Jul-EOP (4) LWC (DJS, MAB); only reports. Black-crowned Night-Heron: all season (up to 200 ad) Bordeaux heronry, DVC (*fide* BPP), heronry not well reported this season; small numbers also reported in MUC (ARL, OBL), HPC (SJS), and SWC (DWB). Yellow-crowned Night-Heron: 26 Jun (11 ad) Shrader Lane, DVC (JDP), highest number reported; smaller numbers also reported from

CHC (CGD, EJW, AHH), HPC (SJS, BHS, LDR), LWC (DJS, MAB), SUC (DTC, JPC), and SWC (DWB, Maxey Irwin, Camille Crenshaw). White Ibis: 13-14 Jul (1 imm) CCNWR (SJS, DWB), only report. Black Vulture: nesting reported at GSP (JPC, SJS) and Warner Parks, DVC (DFV).

Osprey—Eagle: **OSPREY**: by 4 Apr 2 returned to the nest built in 1984 at DRU, and by 6 July large young was in the nest; it apparently fledged successfully, making 1985 the second consecutive year that the DRU nest has produced young (SJS *et al.*); another pair carried sticks in the Bryant Grove area of PPL, but no nest was reported (*fide* RVM); in late June at GSP two other birds were observed in copulatory-like behavior and were suspected of placing sticks on top of a lighting tower (DTC, JPC); hacking results: 2 fledged at PPL on 20 Jul; 2 fledged about 6 Jul at AEDC; 1 fledged probably on 8 Jul at Cordell Hull L. (*fide* RMH). **BALD EAGLE**: the pair nesting on the Westvaco land near CCNWR began incubating 1 Mar and fledged 2 young on 21 Jun, the third consecutive year that this nest has been successful, while another pair built a nest on the refuge but raised no young (*fide* Vicki Grafe); the pair at LBL raised and fledged 1 young, making the second consecutive year this nest has been successful (*fide* RMH); another pair built a nest at DRU, but the 1 young bird which hatched died when only a few weeks old of unknown causes (*fide* Carrell L. Ryan); another pair built a nest at Normandy L., CFC, but abandoned it without producing any young (*fide* RMH); hacking results: 5 imm released 16 Jul-15 Aug at LBL (1 of these died shortly after release) and 2 ad released in mid-Aug there (1 of these recaptured and held) (*fide* RMH); 6 Jun (1 imm) S Robertson Co. (PBH), possibly a bird which had been raised or hacked in the region in a previous year (also, first NA summer record).

Hawk—Tern: Sharp-shinned Hawk: no reports. Cooper's Hawk: 4 Jun (1 circling over a wooded hill) Edwin Warner Park, DVC (DFV); 19 Jun (1) Leiper's Fork, WMC (SJS, BHS, Alice Wray Taylor); 6 Jul (1) DRU (SJS, BHS, DFV); only reports, but an *Accipiter* sp. was seen twice in Jul at CCNWR (SJS). Red-shouldered Hawk: 15 May-EOP (nest with 2 y) Love Lady, PIC (RCH, JDH). Broad-winged Hawk: 13 Apr (1 ad nest-building) Burgess Falls S. P., Putnam Co. (CGD, *et al.*). Virginia Rail: 27 Apr-3 Jul+ (2 ad and at least 1 y) MOP (KGA, OBL, *et al.*), second consecutive year of nesting at this site. Common Moorhen: 18 May-11 Jun (1 ad) MOP (WNJ, KGA, DTC, JPC, *et al.*), nesting suspected for second consecutive year, but no concrete evidence discerned. Ring-billed Gull: 1 Jul (2) OHD (SJS), summering. Least Tern: 22 Jun (1 ad) DRU (LDR, SJS, BHS), indicates possible breeding of this endangered subspecies along the nearby Tennessee R.

Cuckoo—Lark: Black-billed Cuckoo: 25 May, 22 Jun (1 singing) BAH (RWS); 7 Jun (2 singing) Silver Point BBS (PBH). Common Barn-Owl: 3 Jun, 13 Jul (2, 1) Clarksville, MTC (EJW, *et al.*), only report. Red-bellied Woodpecker: 8 Jul+ (1 ad male feeding suet to an imm male Northern Flicker) Stonewall Dr., DVC (Lindsay W. Johnson, Theresa Johnson), photographs of this behavior were obtained and are on file with the compiler. Willow Flycatcher: 6 May (2) Bear Creek WMA, SWC (DWB); 11, 25 May (up to 4) MC (DFV, CRD); 12 May (1) Pardue's Pond, Dickson Co. (CGD); 12 May (2) Herbert's Bottoms, CHC (CGD); 30 May (3) DRU (SJS); 6 Jun (1) Indian Mound BBS (PBH), first regional BBS record (although a "Traill's" Flycatcher was recorded in 1972); 1 Jun-27 Jul (up to 8) MOP (WNJ, ARL, OBL, KGA, *et al.*); only reports. Scissor-tailed Flycatcher: 25 Apr (1) Cedars of Lebanon S.P., WLC (RVM), possibly a bird returning to the RUC site; 12 May-mid-Jun (1 ad noted building nest or nests) Thompson Lane, RUC (RVM, Mac R. McMillan, m.ob.), returnee to only regional breeding site, now occupied for the eighth consecutive year. Horned Lark: 6 Apr-22 Jun (2 pairs, later up to 9 birds) DRU (SJS, BHS, LDR); 13 Jun (2) Collinwood BBS (DJS); only reports; all records Apr-Jun should be reported.

Swallow—Shrike: Tree Swallow: 11 May (16) ACI (CGD), probably late migrants, but perhaps local breeders; 11 May (2) Shelby Park, DVC (M. Patricia Stallings), also possible breeders; 11-30 May (2, near a nest hole) GSP (DTC, JPC); 23 May (1) LWP (SJS, JPC); 11 May-mid-Jun (pair with 3 y) Laurel Hill L., LWC (MDW, DJS, G. Ned Piper, Jennifer Moses); 30 May (13, including 3+ ad at 3 nest sites) DRU (SJS), 2 Jun (2) MOP (KGA). Bank Swallow: 23 May (20) OHD (SJS); 23 May (2) LWP (SJS, JPC); 27 Jun (2) Davy Crockett S.P., LWC (DJS); possible breeders. Cliff Swallow: 11 May (1600+) ACI (CGD); 8 Jun (7) Pond Creek BBS (John O. Ellis); 13 Jun (3) Collinwood BBS (DJS, Royce Neidert); also reported nesting near Cumberland City Steam Plant, SWC (DWB). Bewick's Wren: 27 Apr (2) north WLC (FOD, Ray Pope); 18 May (2) Lebanon State Forest, WLC (RVM); 12 May (1) Owens Farm, SUC (DTC, JPC); 16-30 May (2 singing) Rock Springs Rd., RUC (TJW); 24 May-13 Jul (1) w of Columbia, MUC (WNJ); 24 May (1 singing) Brentwood, WMC (RG, DG); 30 Jul (1) Loretto, LWC (Donna N. Simbeck); see introduction also. House Wren: nesting reported in Nashville with many pairs active, mainly in the suburbs (CRD, *et al.*), in DOV with 1 pair (DWB), in GAL with perhaps as many as 10 pairs (DTC, JPC), and in Clarksville, MTC, with 7 singing birds noted (EJW, AHH). Cedar Waxwing: 2 Jun (2) MOP (SJS, BHS); 14, 28 Jun (2) 5 km SW of DOV (DWB); 27 Jul (2/1) DRU/CCNWR (SJS, BHS); species probably bred in region, but no solid evidence reported. Loggerhead Shrike: all season (3) PIC (RCH, JDH), scarce on the eastern Highland Rim; 12 May (31, including adults at 2 nests and 2 ad with 3 y) eastern and central WMC (SJS, BHS), though down 80% in 20 years on the Peytonsville BBS, WMC, species is still fairly common in the county; overall, slightly up in numbers on the BBSs, but recorded on fewer than half of the 15 routes for the first time; definitely a species in need of close monitoring.

Vireo—Finch: Yellow-throated Vireo: 4 May (pair at nest) MOP (JRW, CPN, *et al.*), nests of this species are difficult to locate. Warbling Vireo: had a very good year on BBSs; also reported from CHC, DVC, HPC, MUC, SWC, and WLC away from BBSs. Black-and-white Warbler: all season (up to 6 singing) BAH (RWS); few other reports, including only 1 BBS record. Mourning Warbler: 25 Jun (1 singing) BAH (RWS), of very rare occurrence at this season. Blue Grosbeak: very good numbers on BBSs. Dickcissel: a very good season, compared to most years this decade; 27 singing at DRU, 15 at CCNWR, 7 at BAR, 5 in WMC, 11 in MUC, 2 in RUC, 1 at LWP, 1 in LWC, and 1 in MTC; also 13 on the BBSs, slightly up. **BACHMAN's SPARROW**: 12 Jun-EOP (up to 3 singing males and 1 juvenile) Fall River, GLC (MDW, DJS, *et al.*), first known regional breeding in a decade; these birds were located in a clearcut area which had grown up with 3-6 foot pines and which had a few isolated clumps of deciduous trees and deciduous stumps available as singing perches for the sparrows. Lark Sparrow: nesting noted at 3 sites in WLC (RVM, TJW), 3 sites in RUC (RVM, Anne L. Hettish), and 1 site on GLC/LWC line (MDW, DJS). Grasshopper Sparrow: half a dozen reports 27 Apr-12 May, but then noted only on 4 BBSs.

Song Sparrow: still increasing in region with birds at MC (up to 30), GSP (4), LWP (2), CCNWR (1), MOP (1), DRU (1), Old Hickory WMA, WLC (2), and Anne Hettish Bird Sanctuary, RUC (1); also noted on Union Hill (2) and Silver Point (1) BBSs, as well as Glen BBS (17). White-throated Sparrow: 23 Jun (1 seen regularly until this date) GAL (DTC, JPC), late but not unexpected. Northern (Baltimore) Oriole: recorded only on Belotes Bend (Katherine A. Goodpasture) and Indian Mound (PBH) BBSs and 1 Jun (pair) pre-run of Petonsville BBS (SJS). House Finch: birds sighted in mid-May at 2 sites in WLC (FOD, Cecile Detlefsen, Grace Speck), late May in Cookeville (RWS), and mid-June in WMC (RG, DG); nesting was confirmed for second consecutive year in DVC (Frances Abernathy and Roy H. Anderson) and for the first time in LWC (Lee Mann, Ann Mann) and SUC (DTC, JPC).

Corrigendum: *Migrant* 54:89, 1983: in the 9 Jun entry for Bewick's Wren change "KJS" to "DJS."

Locations: ACI - Ashland City, Cheatham Co.; AEDC - Arnold Engineering and Development Center, Coffee and Franklin Cos.; BAH - Barnes Hollow, Putnam Co.; BAR - Barkley Waterfowl Management Unit, Stewart Co.; CCNWR - Cross Creeks National Wildlife Refuge, Stewart Co.; CFC - Coffee Co.; CHC - Cheatham Co.; DOV - Dover, Stewart Co.; DRU -Duck River Unit, Tennessee National Wildlife Refuge, Humphreys Co.; DVC - Davidson Co.; GAL - Gallatin, Sumner Co.; GLC - Giles Co.; GSP -Gallatin Steam Plant, Sumner Co.; HPC - Humphreys Co.; LBL - Land Between the Lakes, Stewart Co;.; LWC - Lawrence Co.; LWP - Lewis Pond, Sumner Co.; MC - Metro Center, Davidson Co.; MOP - Monsanto Ponds, Maury Co.; MTC - Montgomery Co.; MUC - Maury Co.; NA - Nashville Area (Davidson Co. and parts of 7 surrounding counties); OHD - Old Hickory Dam, Davidson Co.; PIC - Pickett Co.; PPL - Percy Priest Lake (in Davidson, Rutherford, and Wilson Cos.); RUC - Rutherford Co.; SUC - Sumner Co.; SWC - Stewart Co.; WLC - Wilson Co.; WMC - Williamson Co.

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EASTERN RIDE AND VALLEY REGION—In the northern part of the region the weather was both warm and humid during the period, while July was the first month of the year with above average rainfall. At Knoxville June rainfall was slightly above average, as rains late in the month provided some respite from the spring drought. Knoxville's July rainfall was about 75% of normal, with only 2.6 inches. By the end of the period, they still had a large rainfall deficit for the year. Knoxville's June temperatures were slightly above normal, while July temperatures were slightly below normal. Chattanooga's temperature for June was slightly above average while July was slightly below. Rainfall in the period at Chattanooga was below average registering a deficit of 1.10 inches in June and 1.45 inches in July.

In the Johnson City area Cedar Waxwings, Blue Grosbeaks and Grasshopper Sparrows were all more numerous during the period. They also had several reports of young House Finches in different locations.

Breeding Bird Survey routes and mini-routes conducted in the Knoxville area showed a decrease in numbers of Eastern Phoebes and Carolina

Wrens following the recent severe winter, but they detected no noticeable decline in other susceptible species.

In an effort to control aquatic weeds in Chickamauga Lake, TVA initiated a special summer drawdown on 26 July. Intense efforts were made to observe the wading and shorebirds attracted to this newly created habitat. A few of the observations made at Savannah Bay and in the Hiawassee River Area are mentioned in this summary, but a fuller discussion will be made in the Fall Season Report.

Nesting data was received on a total of 3 pairs of Loggerhead Shrikes. We are still interested in the species so please forward any information on their reproduction.

As is usual, there is much more of interest in the body of the report, so read on!

Loon—Kestrel: Common Loon: 18 Jul (1) CHL, MEC (Wesley K. James). Pied-billed Grebe: 28-31 Jul (1-3) SAB (KHD, LHD). **AM. WHITE PELICAN:** 22 to about 30 Jun (1) Fort Loudoun L., Knox Co. (Paul S. Pardue, Louise F. Fuller, *et al.*), a first regional summer record? Least Bittern: 30 Jun (1 calling) Sugar Cr., HRA (KHD, LHD). Great Blue Heron: 5-7 regular Boone Lake (LHTOS). Great Egret: 30 Jun - EOP (1) SAB (KHD, LHD, RAR *et al.*); 8 Jul - EOP (3-9) HRA (KHD, LHD); 20 Jul (3) DOL (JAK). Little Blue Heron: late Jun - EOP (1) Loudon Co. (*fide* J. B. Owen). Black-crowned Night-Heron: 20 Jul (1 imm), 25 Jul (1 ad) AUS (RLK). Yellow-crowned Night-Heron: 29 Jul (7) HRA (Johnny T. Parks, Albert M. Jenkins). Hooded Merganser: 2 Jun (1 male) NIL (DCC). Black Vulture: 7 Jul (2 ad, 2 y) Armstrong Bend, MEC (KHD, PHD). Osprey: 15 young fledged from 7 active nests on Watts Bar L. (T. Edward Beddow). Bald Eagle: 20 Jun (1 ad) NRL (JCH). Sharp-shinned Hawk: 12 Jul (1) Signal Mt. (RAR); 18 Jun (1) Bristol (GDE); 25 Jul (1) AUS (RLK). Cooper's Hawk: 1 through period, Seymour (PDH); 2 Jun (1) WHP (JAK); 22 Jun (1) Johnson City (Sally Goodin). American Kestrel: nesting again at WHP (JAK).

Moorhen—Tern: Common Moorhen: 25 Jun - 7 Jul (1-2) HRA (DCC, PHD, PCH *et al.*). American Coot: 15 Jun - 28 Jul (2-3) CHL (KHD). Greater Yellowlegs: 20 Jul (2) DOL (JAK); 27 Jul (2) HRA (KHD, DCC, CRH). Lesser Yellowlegs: 27-28 Jul (3-5) HRA (LHD, CRH, DCC). Semipalmated Sandpiper: 20 Jul (10) DOL (JAK); 25 Jul (8) Jonesborough (RLK); 28 Jul (8) HRA (KHD, LHD). Least Sandpiper: 20 Jul (1) DOL (JAK); 27 Jul (4) AUS (RLK); 28 Jul (2) HRA (KHD, LHD). Pectoral Sandpiper: 27-28 Jul (6-31) HRA (CRH, DCC, LHD). Stilt Sandpiper: 27 Jul (2) HRA (KHD, LHD). Short-billed Dowitcher: 31 Jul (4) SAB (KHD, LHD). Common Snipe: 29 Jul (3) SAB (LHD). Ring-billed Gull: 23 Jul (2) NRL (JCH) - summering or very early fall arrivals. Caspian Tern: 23 Jul (1) NRL (JCH). **LEAST TERN**: 7 Jul (2) Fort Loudoun Lake, Blount Co. (Marcia L. Davis) - the closest nesting area is along the Mississippi River, could they have been blown in from the east coast? Black Tern: 28 Jul (3) SAB (KHD, LHD); 30 Jul (2) NIL (CDB).

Flycatcher—Shrike: Least Flycatcher: 1 Jun (1, appeared territorial) Smoky Jct. BBS route, SOC (CPN); there are no previous summer records from the county, although this individual could possibly be a late migrant. Eastern Phoebe: Knoxville area census routes showed some decrease in numbers following the severe winter. Tree Swallow: DOL nesting site had

2 ad and 2 imm on 15 Jun (JAK); 29 Jul (2) SAB (LHD). Bank Swallow: about 10 pairs nested in East Knox Co. for the second year in a row (PDH); at the KSP site, on 9 Jun most of the bank had slipped away, destroying a majority of the nests; however, 1 imm was observed in a nest hole; on 8 Jul 65 nest holes counted with 1 y seen in nest cavity (KHD, LHD). Carolina Wren: data from census routes in Knoxville area showed 40-50% reduction in numbers following the severe winter; however, the species entered the winter in very high numbers, and was not reduced to the low level following winters in the late 1970's (CPN). House Wren: pair present all season Maryville (JAK). Cedar Waxwing: 11 Jun (1) Cleveland (PHD); 18 Jun (2) Guild, Marion Co. (CDB, LHD). Loggerhead Shrike: in addition to Rudd's nest last period, active family groups were noted at HRA (DCC) and SAB (KHD); only reports received.

Warblers—Bobolink: Chestnut-sided Warbler: 1 Jun (1) Smoky Jct. BBS route, SOC (CPN) - first time on route. Swainson's Warbler: noteable decline in numbers, with birds not found in some regular locations in Anderson and Campbell Counties (James M. Campbell, CPN). **CANADA WARBLER**: 4 Jul (pair carrying food) Frozen Head Mountain, Morgan Co. (CPN); this is the first breeding record from the Cumberland Mountains in Tennessee; they are known from the Cumberlands in Kentucky (details to be published in *The Migrant*). Lark Sparrow: 28 Jul (1 imm) Chattanooga (RAR, KHD). Bobolink: 2 Jun - pair on territory at WHP; on 15 Jun the area had been mowed; a male was present at this same site on 14 Jun 1980 (JAK).

Locations: AUS - Austin Springs, Washington Co.; CHL - Chickamauga Lake; DOL - Douglas Lake; HRA - Hiwassee River Area; MEC -Meigs Co.; NIL - Nickajack Lake; NRL - Norris Lake, Union Co.; SAB -Savannah Bay, Hamilton Co.; SOC - Scott Co.; WHP - White Pine, Jefferson Co.

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EASTERN MOUNTAIN REGION—The temperature for both months was above average. June rainfall was near average, while July was the first month of the year with above average rainfall. These conditions resulted in a hot, humid summer.

Heron—Sandpiper: Great Blue Heron: 2-3 seen regularly around Watauga Lake (*fide* GDE, RLK), unusual in area during summer. Yellow-crowned Night-Heron: 2 pairs successfully nested in ELI area (*fide* GDE). Osprey: 2 Jun (1) over RNM (GDE), late migrant. Cooper's Hawk: 25 Jul (1) SJP (RLK). Solitary Sandpiper: 20 Jul (1) SJP (RLK), first fall report. Spotted Sandpiper: 26 Jul (2) Roan Creek, Johnson Co. (RLK), first fall report. Least Sandpiper: 25 Jul (4) SJP (RLK), first fall report.

Barn-Owl—Finch: Common Barn-Owl: 2 pairs fledged y from same tree in July near South Holston Lake (*fide* GDE). Barred Owl: 22 Jun (1) SJP (Edward H. Schell). Alder Flycatcher: 1 Jun - 5 Jul (3-5) RNM (LHTOS). Loggerhead Shrike: no reports. Blue-winged Warbler: 9 Jul (1) Bays Mtn. (Richard Clark). Golden-winged Warbler: 2-4 pairs in RNM State Park area (*fide* GDE, RLK). Swainson's Warbler. 7 Jun (2) Rock Creek Park, Unicoi Co. (LHTOS). Blue Grosbeak, Grasshopper Sparrow: both more numerous in ELI area than in many previous seasons (*fide* RLK, GDE). House Finch: several broods reported in ELI area (*fide* GDE, RLK).

Locations: ELI - Elizabethton; RNM - Roan Mountain; SJP - St. Johns Pond, Washington Co.

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MAB—Michael A. Beuerlein
CDB—C. Del Blum
DWB—Donald W. Blunk
CHB—Carolyn H. Bullock
DCC—David C. Chaffin
BBC—Ben B. Coffey, Jr.
LCC—Lula C. Coffey
DTC—Dot T. Crawford
JPC—J. Paul Crawford
DAD—Dollyann Daily
CRD—C. Rowan Debold
PHD—Paul H. Dietrich
FOD—Fred O. Detlefsen
CGD—C. Gerald Drewry, Jr.
KHD—Kenneth H. Dubke
LHD—Lillian H. Dubke
GDE—Glen D. Eller
RPF—Robert P. Ford
DG—Dewey Griffin
RG—Ruth Griffin
PBH—Paul B. Hamel
PCH—Paul C. Harris
PDH—Paul D. Hartigan
JDH—J. David Hassler
RCH—Robbie C. Hassler
RMH—Robert M. Hatcher
AHH—Anne H. Heilman
JCH—Joseph C. Howell
CRH—C. Richard Hughes
WNJ—William N. Jernigan
RLK—Richard L. Knight
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DJS—Damien J. Simbeck
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SJS—Stephen J. Stedman
JLS—John L. Stokes
MT—Michael Todd
DFV—David F. Vogt
JEW—James E. Waldron
MGW—Martha F. Waldron
EJW—Ellen J. Walker
MDW—Morris D. Williams
JRW—Jeff R. Wilson
RJW—Terry J. Witt
LHTOS—Lee R. Herndon Chapter, TOS

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